TANKOGRAD - WORLD WAR ONE

N° 1011

IMPERIAL GERMAN ARMY
WEAPONS AND SOLDIERS OF
THE GREAT WAR 1914 - 1918

Lastkraftwagen

German Military Trucks Vol. 2

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by Jochen Vollert

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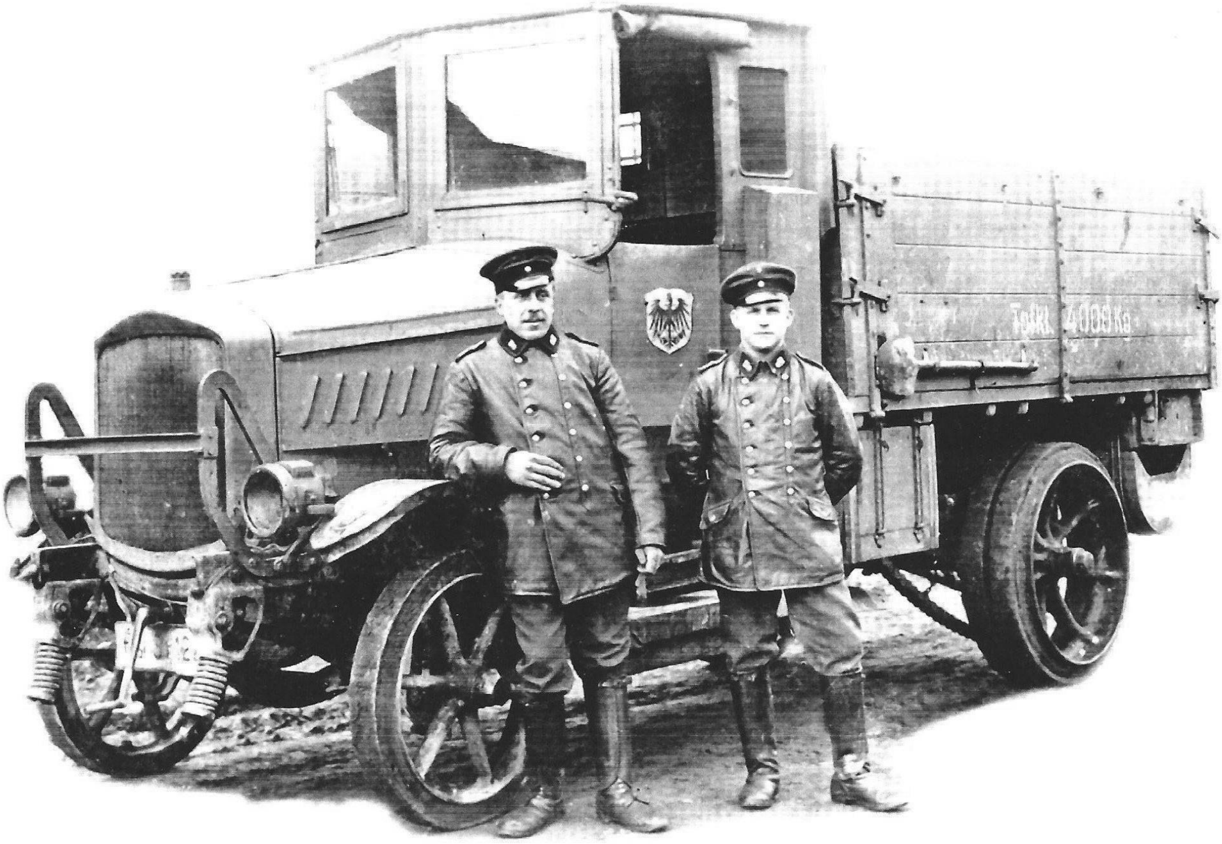

Jochen Vollert

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Introduction by the Publisher

World War One - the 'Great War to end all wars'. While in many countries, especially in Great Britain and in France still vividly alive, the memories about the first major international conflict faded away in other countries during the past decades, overshadowed by World War Two, the Cold War and most recently the War on Terror.

More than ninety years have passed since World War One has ended. For many it is now just a footnote in history while the last living soldiers who witnessed the bitter fighting recently passed away. For most people today the Great War was the war of trenches, a war on foot and in the mud. At first glance, few associate this landmark event with the rise of mechanisation in warfare, the first aircraft used in combat, the rise of the age of the machine gun, submarines, motor vehicles, tanks.....

This series of publications will, with hitherto unpublished material, close vital gaps in the history and equipment of the Imperial German Army of World War One to keep the memory of the soldiers of all armies of WW1 alive. They will not be forgotten.

***Jochen Vollert*, Publisher, August 2021**

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who was always on the lookout for motoring books for me on flea markets and collector's fairs

Without their contributions, this work would not have been as complete and correct as it is today!

***Jochen Vollert*, August 2021**

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Front Cover:
Stoewer L 6 S 4- to 5-ton *Heereswagen*
Credit: Jochen Vollert Collection

03. Heeres-/Regellaſtwagen - Army Solo Trucks

Here the continuation on solo truck manufacturers in alphabetical order, as started in volume 1 of this two-volume publication

The Change to Solo Tucks

With the idea of the *Armeelastzug* truck-trailer combination turning out to be a failure due to the new face of war in the trenches, and with widespread logistical operations on bad roads in the hinterland of the frontlines, the concept of the *Heereswagen* military solo truck, based on the pre-war principle of the *Kavallerielastwagen*, took over from about 1915. However, with war in full swing there was no time to stop and develop a true tactical truck. In consequence, the outlines established for *Heereslastwagen* and *Regel-Lastwagen* as of 1915 became the criteria for a *Regel-Dreitonner* (standardised military 3-ton truck) in 1916 and were given as follows:

***Regel-Dreitonner* solo truck specifications as of 1916:**

- **Minimum 3-ton *(Dreitonner) Nutzlast* payload on hard roads. This figure was often reduced in the *Zuladung* or *Tragfähigkeit* for use on bad roads**
- **Reliable 4-cylinder petrol engine**
- **Sufficient engine power to reach 10-15km/h on hard roads**
- **Hardtop cab with windscreen and lowerable side screens to protect the crew**
- **Dual rear tyres, single front tyres**
- **Large enough cargo bay for the transport of supplies and soldiers**
- **Sufficiently sturdy design to withstand hard use**
- **Two to four headlights**
- **Rubber-rimmed wheels made of cast iron**
- **Chain-drive on the rear axle (later Cardan drive was also permitted)**

Note: These specifications were outlines and not binding for the manufacturer.

Not required were: ° Off-road capabilities

Impossible to sustain were: ° Interchangeable spare parts among different makes

With the costly *Armeelastzug* vanishing from army plans in 1915, and impressed commercial trucks neither available in the required quantity nor their design often robust enough for daily military duties (the Imperial German Army preferentially impressed trucks built from 1912-14, so older models remained scarce), those manufacturers active in truck design before the war focused their ranges on the new *Regel-Lastwagen* types and adapted their pre-war designs for that purpose. In addition, other companies launched their truck production based entirely on military contracts, though also based on the pre-war designs of their competitors rather than indulging in time-intensive and costly development of a true tactical truck for military applications.

A Huge Task for the Manufacturers

Taking into consideration that conveyor belt industrialised motor vehicle production had not yet been introduced in Germany, the output of German truck-makers, in comparison to the war effort elsewhere (e.g. in the UK and USA), Germany could not compete in terms of production figures. Ultimately, the output in *Regellastwagen* army trucks never reached the demanded quantity, and impressed civilian truck types, as well as existing *Armeelastzüge* minus their trailers, supplemented each other to create a flamboyant multiple-type army motor pool that created a logistical nightmare in terms of spare parts.

German truck production in World War One reached its peak in 1916. From then on, truck production was further hampered by a shortage of raw materials that severely limited the service life of vehicles: rubber-rimmed wheels were replaced with steel-rimmed or wooden-rimmed ones, and from 1918 even by full-steel *Kriegsbedingte Notbereifung* emergency tyres were introduced. Cast iron replaced scarce aluminium, and cast steel replaced bronze or brass. The much reduced quality of materials caused significant additional wear and tear on vehicle mechanical components, further reducing their service life. Cardan-drive trucks had to be replaced with chain-drive types, and leaf spring suspension had to be reinforced by additional coil springs to absorb the stronger shocks of harder tyres on bad roads.

All in all, approximately 38,000 trucks were built for the army by a multitude of German manufacturers, and here is a guideline to the following chapters in alphabetical order of manufacturer:

Legendary Makes

By sheer numbers of trucks produced for the military, Benz is certainly on top of the list with about 5,000 trucks manufactured, followed by Büssing, Daimler and Opel, each in the 3,000-4,000 range. Noteworthy here is also the company Hansa-Lloyd which, on paper, built over 10,000 trucks - a figure not supported by any pictorial evidence.

The list of manufacturers also contains German truck-building legends, first and foremost Büssing, yet also Horch, Mannesmann-Mulag, Nacke and Stoewer – names that today have all faded into history.

Other World War One suppliers to the Imperial German Army are still going strong today: Daimler-Benz and MAN (RMMV) are the mainstay of military trucks in the modern German Army, the Bundeswehr.

There were also a number of makers that commenced truck production for the German war effort only, among them famous names such as Magirus, MAN-Saurer and Vomag.

Despite the relatively small quantities some provided for the army in World War One, manufacturers such as Ageka, Bergmann, Komnick, Union and Windhoff to name just a few, add a lot to the myth of this early era of motoring in 1896-1918 during which more than 100 (!) German commercial-vehicle manufacturers contributed to the birth of the German motor industry*.

The Loose Ends

More than 100 years have passed since the end of World War One, yet it needs to be noted that this two-volume publication about *Lastkraftwagen* of the Imperial German Army is the first ever publication covering trucks of this period in a comprehensive way. Over 20 years of research and collecting went into this project to make it visually stunning and the text informative, although there is still unknown territory to discover.

As per written documentation, the following manufacturers joined *Regel-Dreitonner* production in 1915-18, yet in-service photos, or in some cases any pictorial evidence whatsoever about their specific designs, are lacking. Therefore, it is impossible to add them to this publication: Oryx, Erhardt, Fafnir, Frankfurt, Simson, Protos, Rex-Simplex, NSU, FAUN and Güldner.

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* See Further Reading on page 192

03.11 𝔇𝔦𝔵𝔦 / Dixi Trucks

The company Fahrzeugfabrik Eisenach AG was founded in 1896 by the famous military engineer Heinrich Erhardt in the city of Eisenach, in order to receive a substantial order by the Prussian military covering horse-drawn ambulances and field kitchens, among others. Ehrhardt had by then already gained a good reputation producing military equipment such as artillery ammunition limbers and bicycles for the army.

In 1898 the first *Wartburg-Wagen* passenger car was offered, though from 1901 the Wartburg trademark was dropped and passenger cars under the trademark Dixi began to leave the factory for the civilian market. In 1904 the company was subsequently renamed Dixi-Werke, Fahrzeugfabrik Eisenach. In 1902, Dixi also began producing trucks and buses in the 1.5-ton, 2.5-ton and 3-ton payload ranges. Only two years later, Heinrich Erhardt left the company after an internal dispute, and he founded a new car maker, Heinrich Erhardt Automobilwerke in Zella St. Blasi.

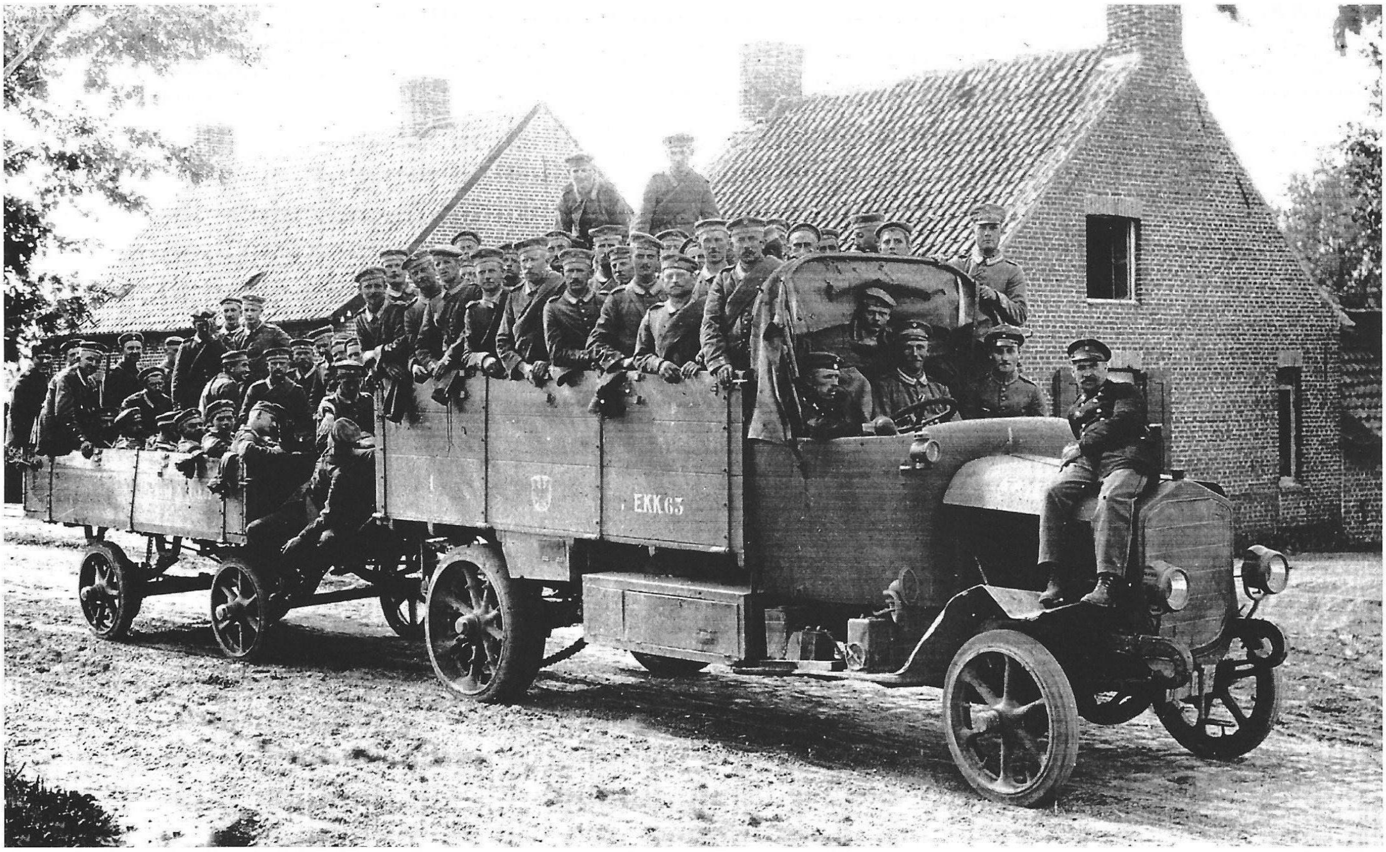
The Dixi plant carried on to make motor vehicles, and it became famous for the fact that it was able to produce all components required within the company without any subcontractors, which was quite rare at the time but resulted in a high-quality product.

From 1907, Dixi also built *Kriegsbrauchbare Lastwagen* suitable for military service. The first two models were a 3-ton powered by a 4-cylinder 25hp 6782cc engine, and a 5-ton powered by a 4-cylinder 25hp 6782cc engine. These were followed in 1908 by a 4-ton powered by a 4-cylinder 35hp 6782cc engine.

All these types were modernised from 1909-12 and fitted with more modern engines. More types of civilian trucks also expanded the range from 1909, with the SL/O, TL/O and UO types. Among the relevant pre-war types introduced from 1911-14 were the:

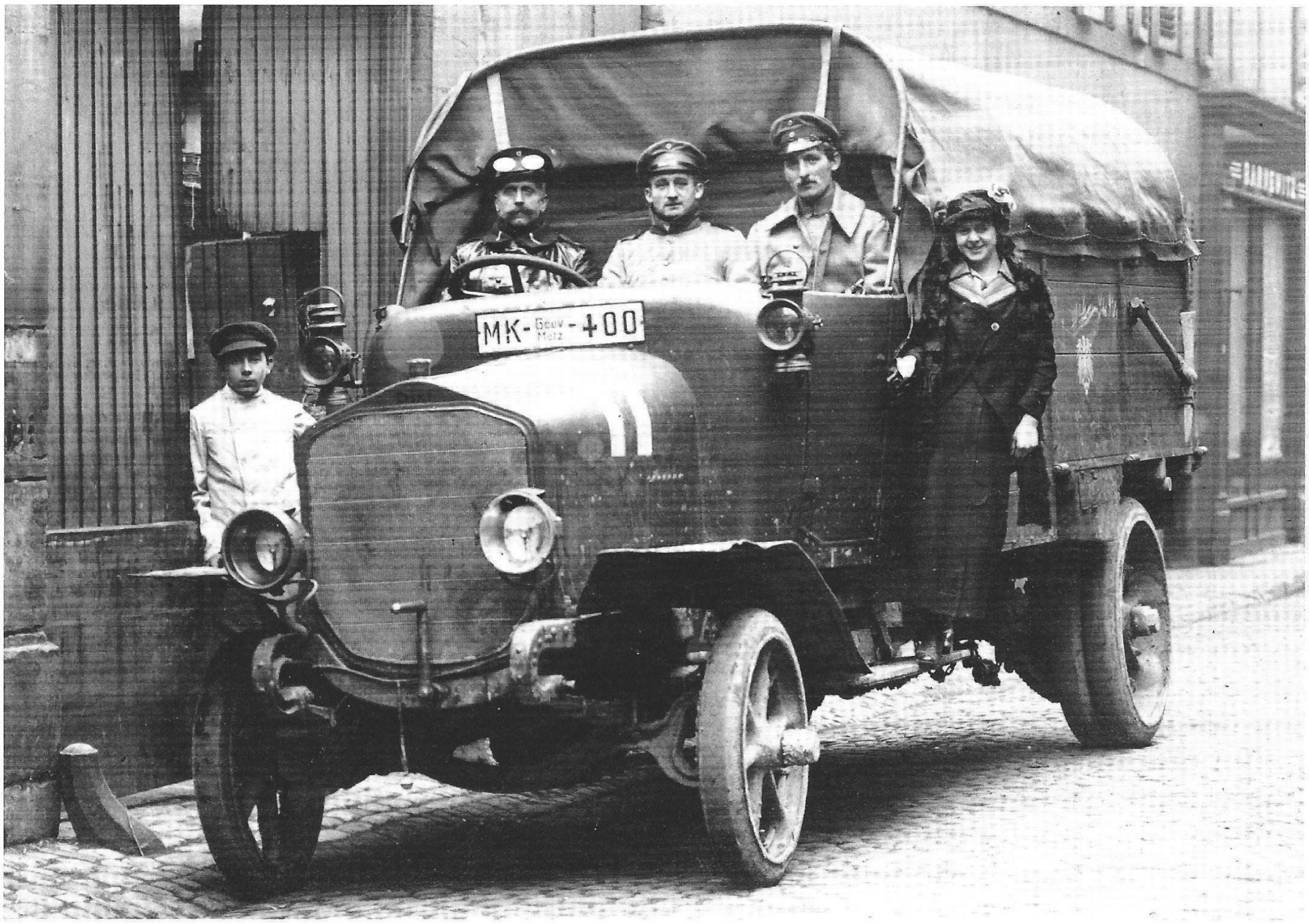
°	SL15	2-ton	powered by a 4-cylinder 26hp 3454cc engine	(173 built from 1909-16)
°	TL20	3-ton	powered by a 4-cylinder 40hp 4380cc engine	(18 built in 1914)
°	TL25	3-ton	powered by a 4-cylinder 35hp 4939cc engine	(233 built from 1911-15)
°	TL30	3-ton	powered by a 4-cylinder 35hp 4939cc engine	(700 built from 1916-18)
°	UO13	4.5-ton	powered by a 4-cylinder 50hp 7359cc engine	(226 built from 1914-18)

During the war, Dixi also commenced production of a *Heereslastwagen* in the 3.5-ton to 4.5-ton payload range, its design based on the last pre-war models. The trucks added to a wide range of other military equipment, including ambulances and field guns.

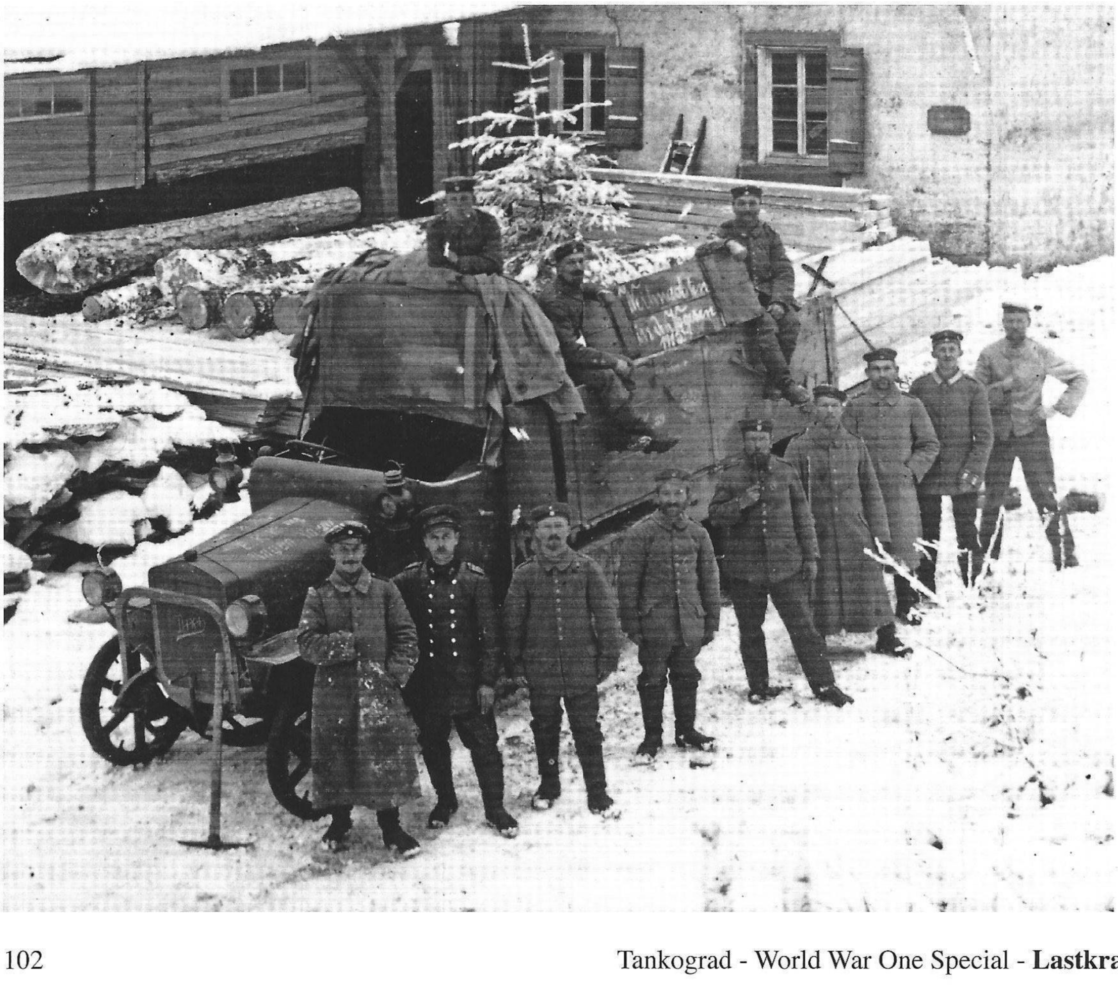


With most truck-makers of the pre-1918 era, it is hardly possible to externally differentiate the various models of one manufacturer. In almost all cases, the changes between models and their respective production years are minimal, and in many cases only the engine was modernised. This Dixi truck certainly is a pre-war impressed civilian model, as indicated by the foldable soft-top roof without a windscreen, and the absence of a radiator brush guard. The payload is most likely 3 tons. Note the marking of *Etappen-Kraftwagen-Kolonne 63* and the non-standard trailer.

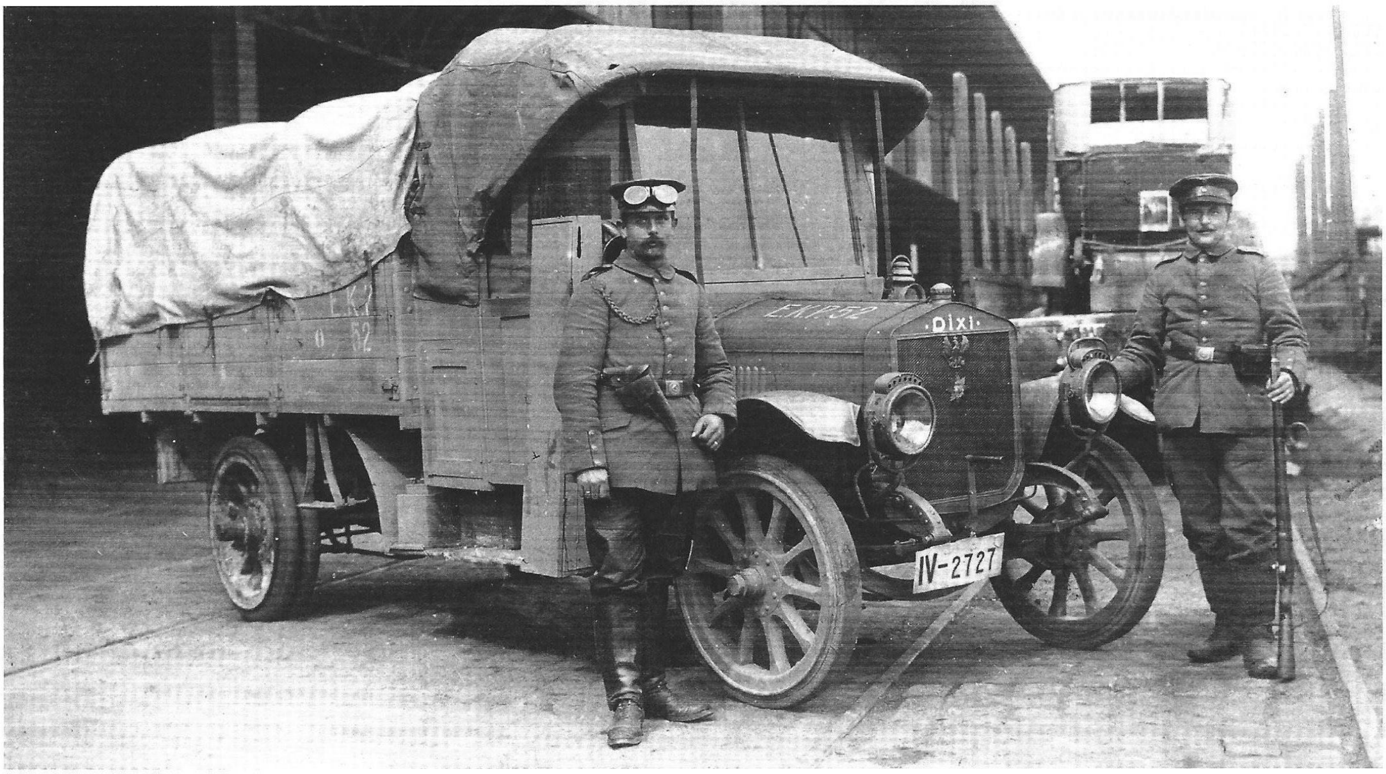
Credit: Jochen Vollert Collection



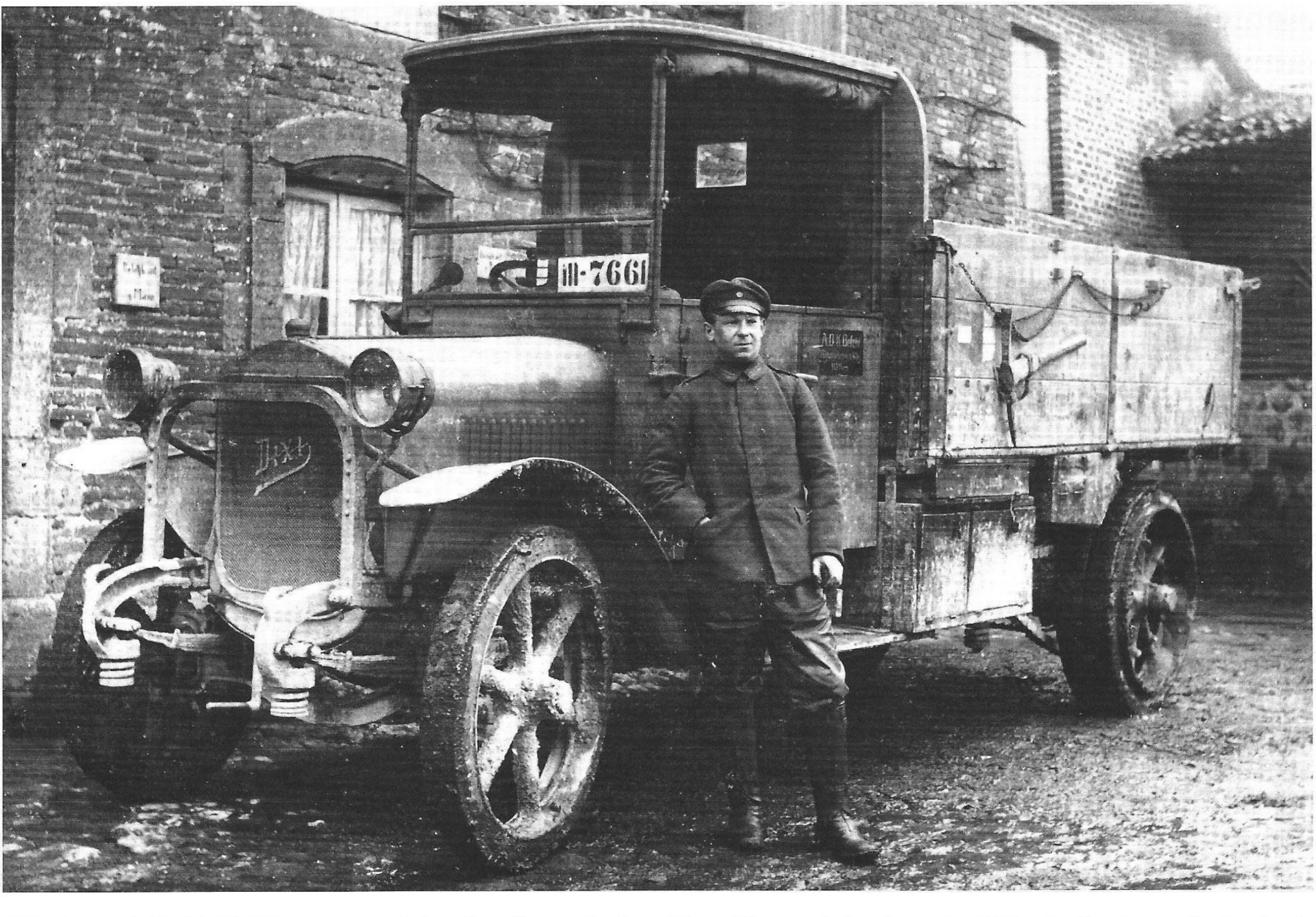
A nice, clean photo of another commercial Dixi truck impressed into military service. Note the typical radiator shape of this manufacturer. The massive design points towards a 4-ton or 5-ton model. Highly unusual is the licence plate with its '*MK*', indicating the *Reichsgebiet*, yet Roman digits are absent. The addition of '*Gouvernement Metz*' puts it under the control of the *Festungs-Lastwagen-Park* of the German fortress in Metz. Credit: Jochen Vollert Collection



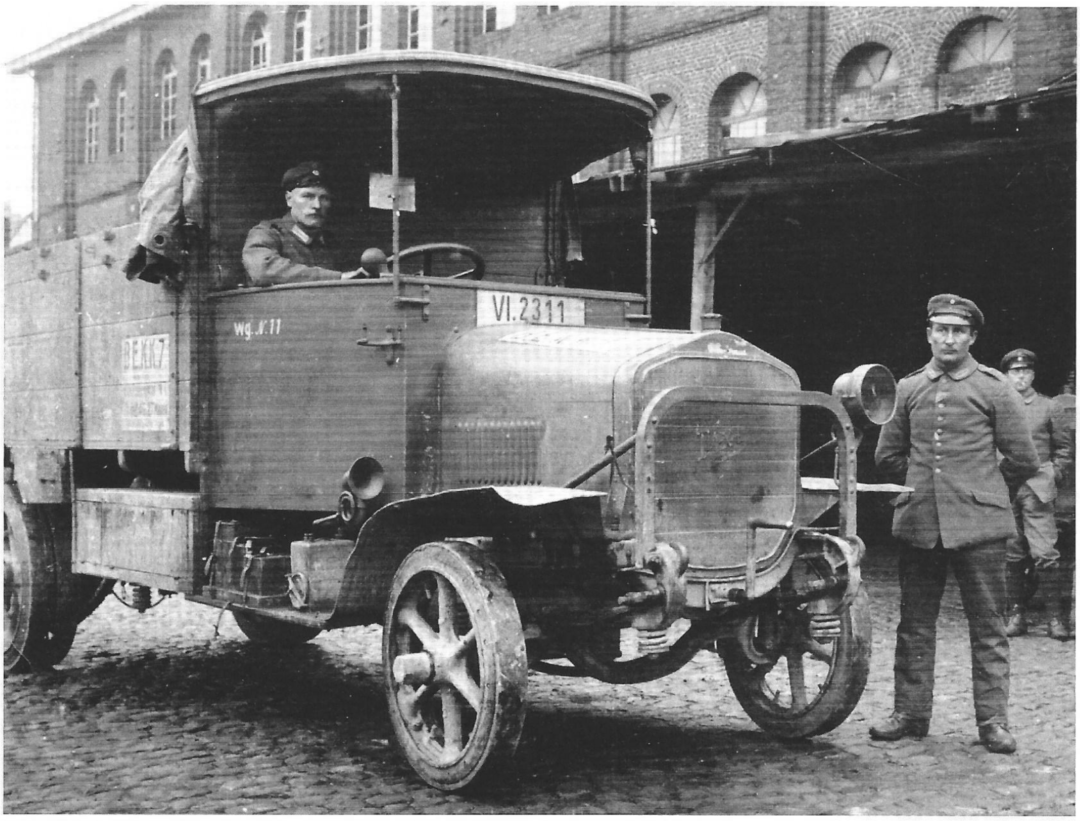
An interesting perspective of another pre-war Dixi model with soft-top cab without a windscreen, yet refitted with a radiator brush guard. *Wagen* no. 20 is serving with an unidentified *Etappen-Kraftwagen-Kolonne*. The photo was taken to commemorate Christmas in the Vosges in 1915. Credit: Jochen Vollert Collection



This properly labelled Dixi truck is also a pre-war impressed civilian model, as indicated by the foldable soft-top roof, albeit in rare combination with an improvised windscreen and the absence of a radiator brush guard. The payload is most likely 3 tons. Note the licence plate of the 4th Army, the marking of *Etappen-Kraftwagen-Park 52*, the carbine box on the driver's side of the cab and the wooden wheels. Credit: Jochen Vollert Collection

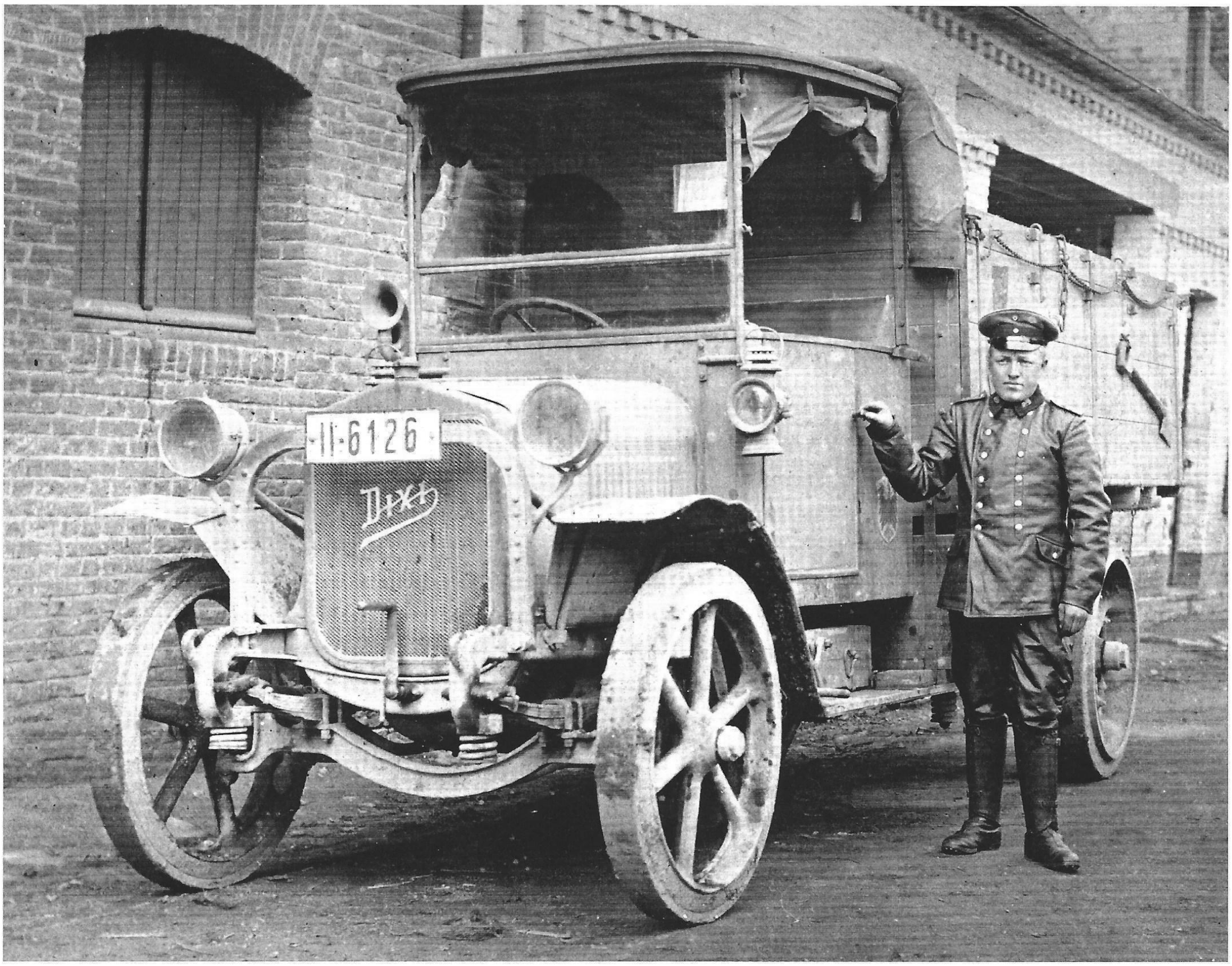


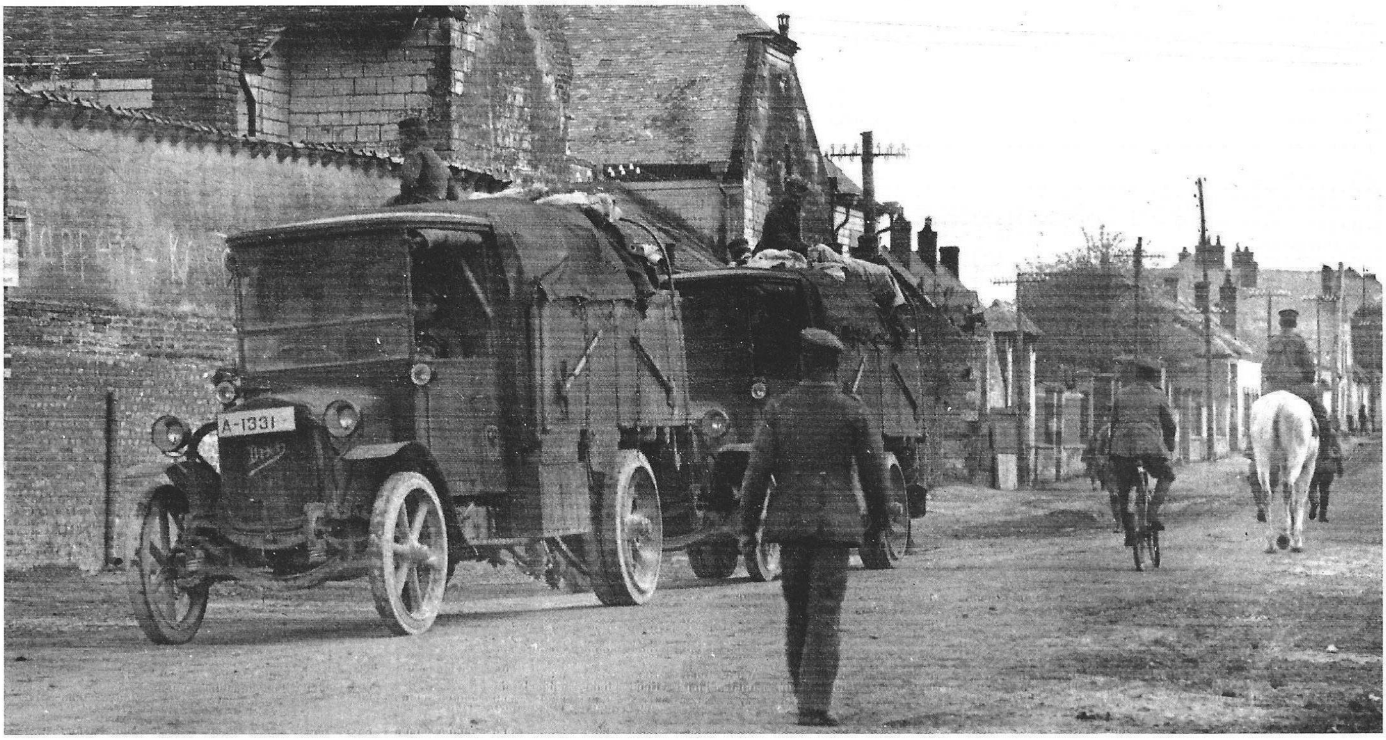
All features point to this Dixi *Heereswagen* as being of wartime production with a military-grade brush guard, additional coil springs on the front and rear leaf-spring suspensions and the closed hardtop cab with windscreen. Note also the pioneer tools attached to the cargo bay. The lettering on the cab reads, 'By order of the Army High Command top speed is limited to 10km/h.' The licence plate is of the 3rd Army. Credit: Jochen Vollert Collection



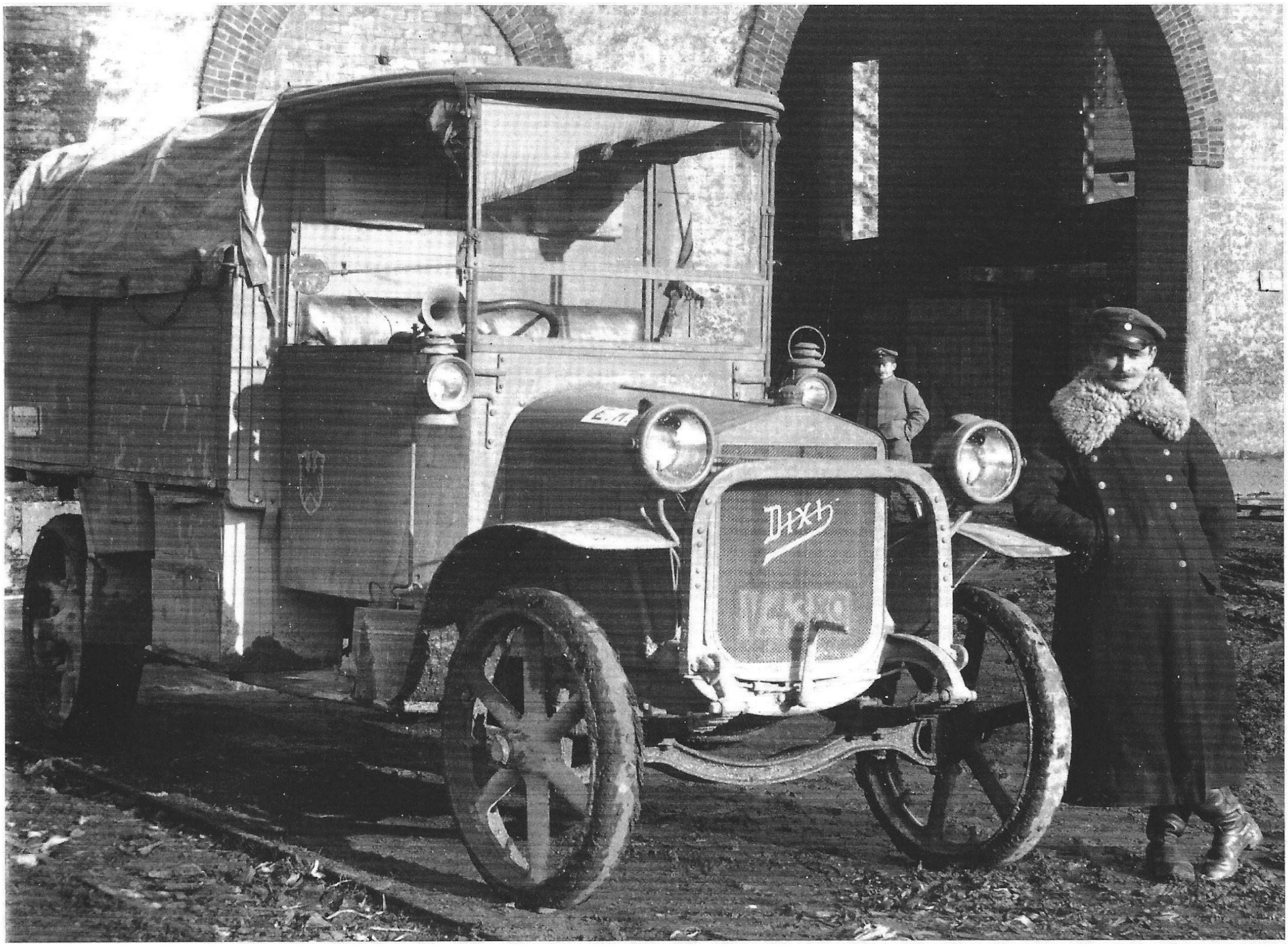
Another wartime production Dixie truck. 'Dixi' lettering in brass applied to the front of the radiator does not give away whether it is a commercial or military vehicle, since the lettering got lost more often than not. This is *Wagen* number 11 with a 4-ton payload and in service with the *Bayerische Etappen-Kraftwagen-Kolonne 7* of the 6th Army.
Credit: Jochen Vollert Collection

This Dixie 3-to 4.5-ton model is in service with *II Armee*, and once more it shows all details of a *Heereswagen* for military service, including the cab, brush guard and additional coil springs again visible on the front and at the rear axles. Note the unusual location of the Prussian crest marking as well as the large-diameter front wheels when compared to the size of the front wheels in the photo above.
Credit: Jochen Vollert Collection

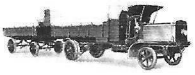




Driver's routine. Two Dixi *Heereswagen* of *Armee-Abteilung A* are hauling supplies towards the frontline. Credit: Jochen Vollert Collection



This Dixi of an unidentified *Etappen-Kraftwagen-Kolonne* has quite unusually painted the licence plate, of the 5th Army, on the lower end of the radiator front. Note the absent additional coil springs, which could indicate a lower-payload pre-war military model, and the rear view mirror on the driver's side. Credit: Jochen Vollert Collection



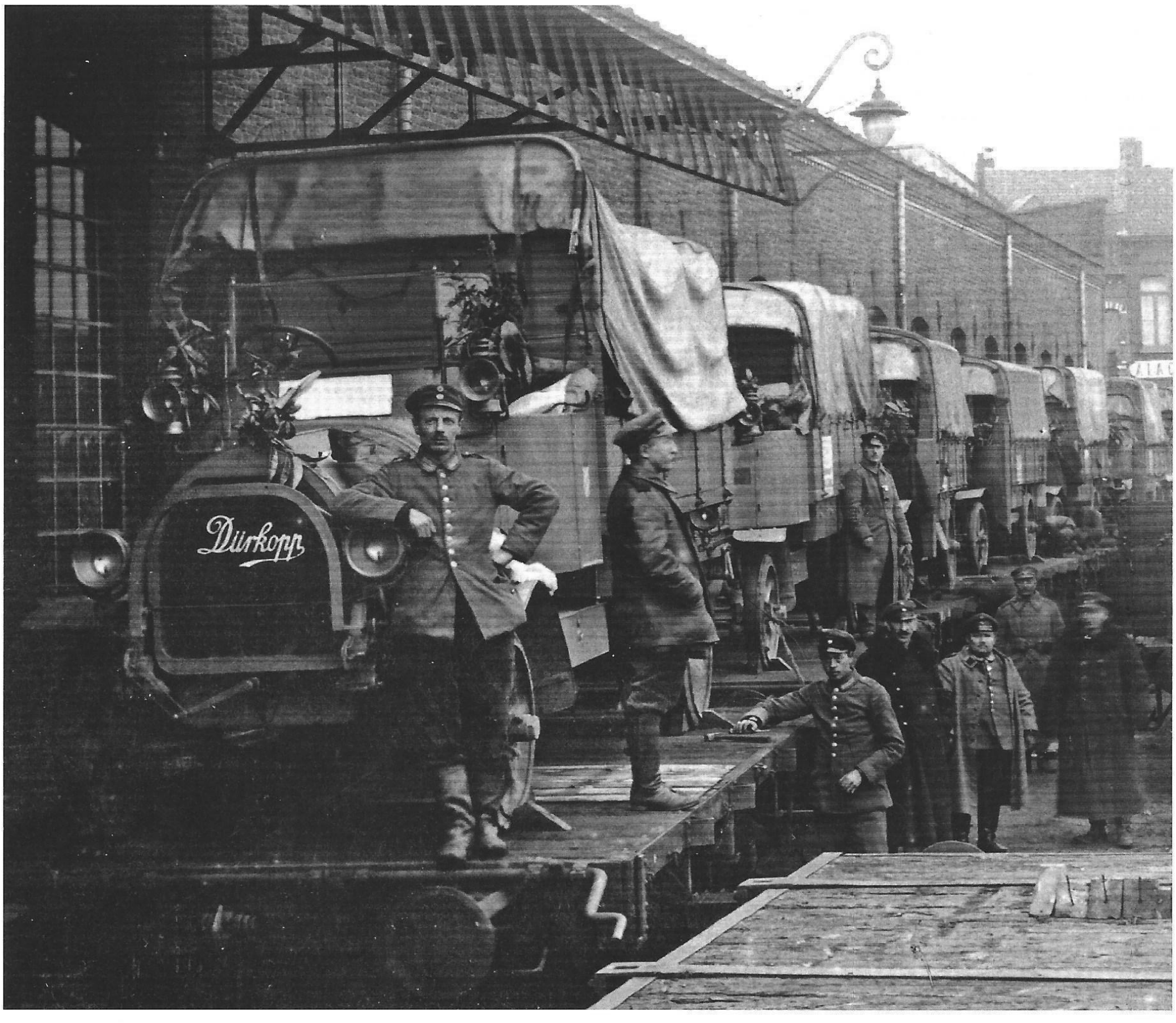
03.12 Dürkopp / Dürkopp Trucks

In 1867 the mechanic Nicolaus Dürkopp was one founder of Maschinenfabrik Dürkopp & Schmidt in Bielefeld. In 1885 the machine works started building bicycles, and from 1894 motor vehicles, with the first passenger car rolling out in 1897. The first of the latter was a 2-cylinder 8hp truck of 1899. In the same year, the company changed its name to Bielefelder Maschinenfabrik, vormals (formerly) Dürkopp und Compagnion. The next motor vehicle was a 5-ton truck in 1905 that was soon nicknamed the *Bierwagen*, as it was purchased mostly by breweries. In 1909 the company once more changed its name to Bielefelder Maschinenfabrik Dürkopp u. Co. AG, before in 1913 becoming Dürkoppwerke AG. A major factor for vehicle production was that the company had its own casting plant and body works, making them independent from coachbuilders, for instance.

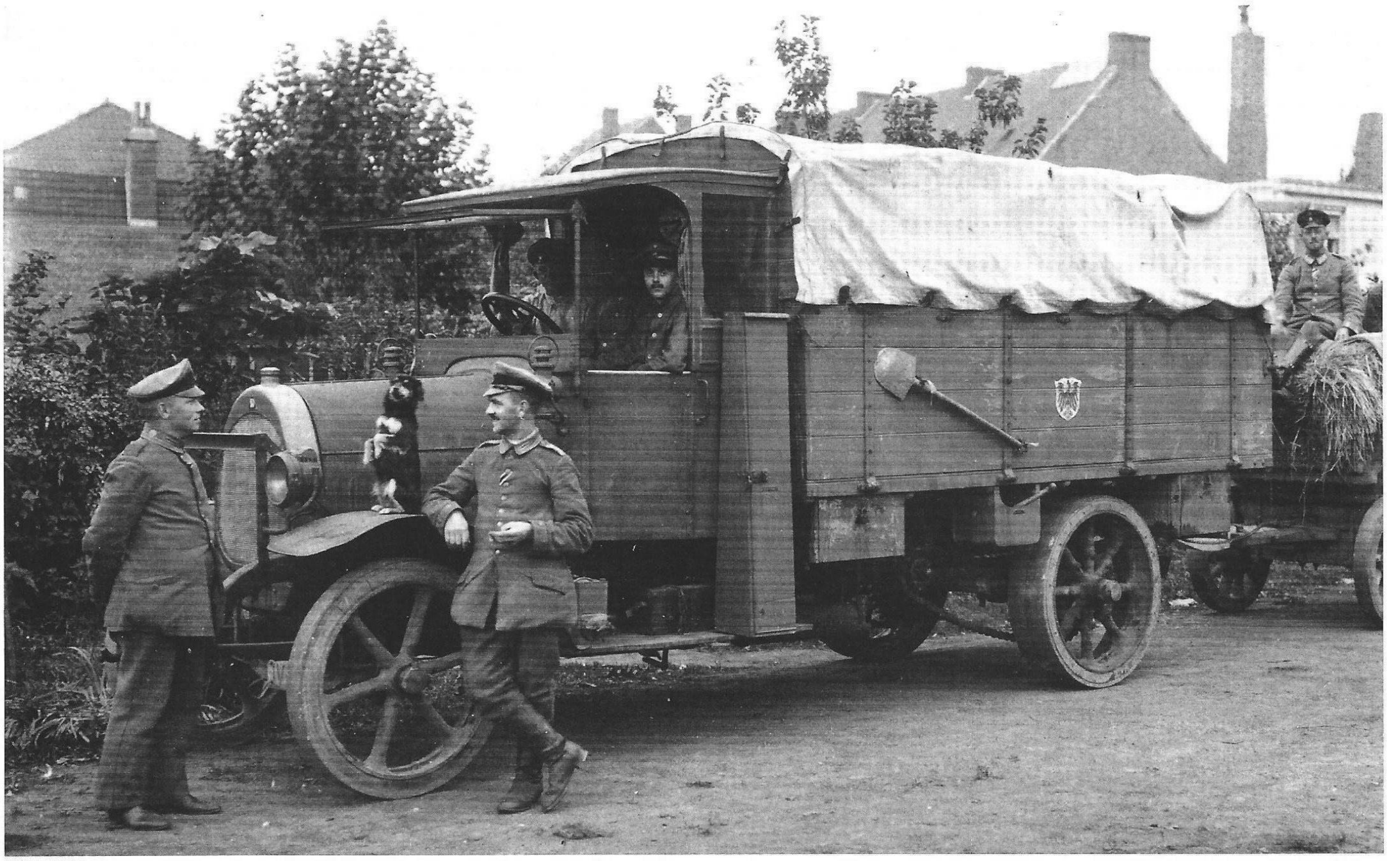
The year 1907 saw a truck with a 4-ton payload and 30/35hp (later 43hp) engine that created widespread interest in Germany, as it was highly reliable and used a Cardan drive rather than a chain drive. Between 1909 and 1911 followed a 2.5-ton, a 1.75-ton and a 5-ton truck with 35-45hp motors. From 1912-13, Dürkopp launched no less than six new designs:

°	L 30	1.5-ton	powered by a 4-cylinder 28hp 3306cc engine
°	L 40	2-ton	powered by a 4-cylinder 36hp 4500cc engine
°	L 60	3-ton	powered by a 4-cylinder 39hp 5398cc engine
°	L 80	4-ton	powered by a 4-cylinder 43hp 6340cc engine
°	L 100	5-ton	powered by a 4-cylinder 50hp 7959cc engine
°	L 100	5-ton	powered by a 4-cylinder 56hp 8490cc engine

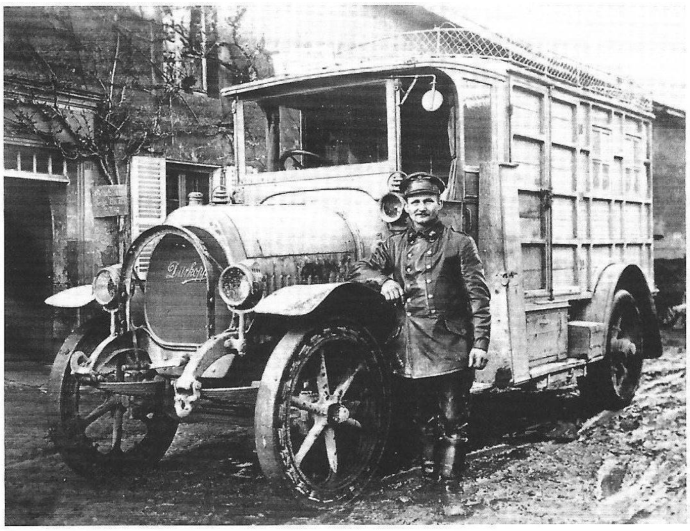
During World War One, Dürkopp, as with all other truck manufacturers, focused on *Heeresmodell /Regel-Dreitonner* L 60 3-ton trucks for the army, but it also built specialised vehicles equipped with winches and an artillery prime mover. With only about 300 L 60 trucks in the 3-ton range (including those for use as *Armeelastzüge*) built from 1914-18, Dürkopp trucks remained a very rare sight on battlefields.



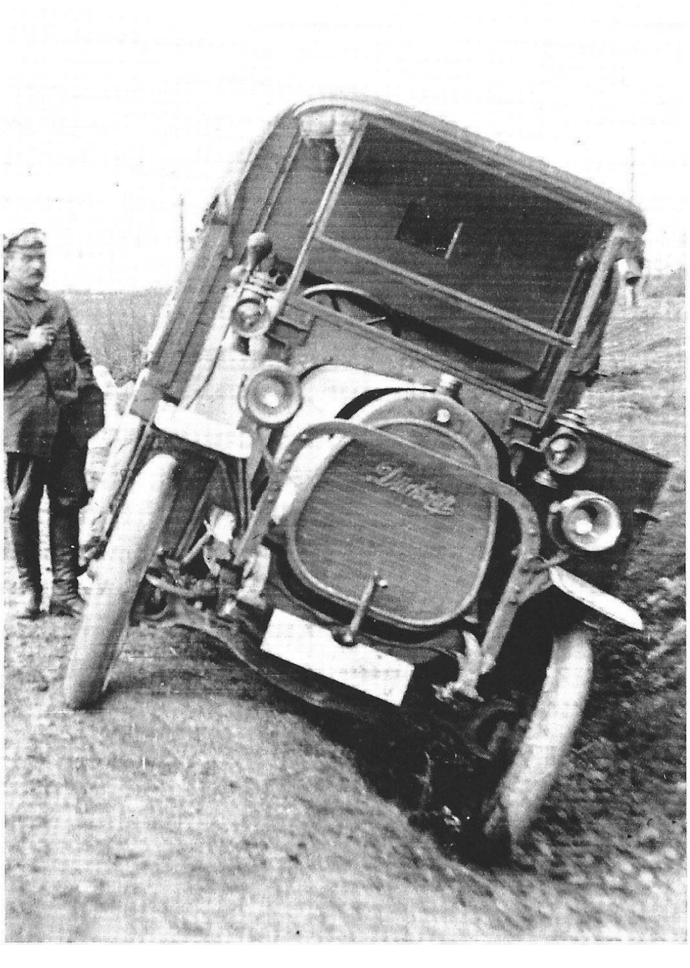
A railroad loading operation in France, with Dürkopp trucks of unidentified models belonging to a Bavarian Army unit. It is notable that the radiator is of a pre-war commercial style with distinctive Dürkopp lettering, presumably in polished brass, and refitted with a brush guard. Also notable is the soft-top cab; the *Regeldreitonner* 3-ton model for the army was to have a hardtop cab. Credit: Jochen Vollert Collection



This is the 3-ton *Heeresmodell* based on the Dürkopp L 60. Note the altered shape of the radiator with the typical 'D' for Dürkopp on the upper casing, and the improvised rectangular brush guard. The Dürkopp lettering is missing. For military service a shovel has been fitted to the side of the cargo compartment, and a Prussian crest can be seen next to it. Credit: Jochen Vollert Collection



Some of the few Dürkopp L 60 3-ton trucks received special bodies such as this box-type wooden example either for a telegraph unit or for use as a workshop. Note the luggage rack on the roof. The photo was taken in 1918, as the *Kriegsbedingte Notbereifung* on the front axle is fitted. Also note the rear-view mirror, a rarity on trucks of that period.
Credit: Jochen Vollert Collection



A front view of the 3-ton *Heeresmodell*, allowing clear identification of the wartime radiator shape with Dürkopp lettering in low-visibility colour, and the 'D' logo that resembles a harp. Strangely enough, the brush guards on Dürkopp trucks are almost never identical, which leads to the assumption that they were improvised and fitted in the field. Note the four headlights and hardtop cab. Credit: Jochen Vollert Collection

03.13 𝕯ux / Dux Trucks

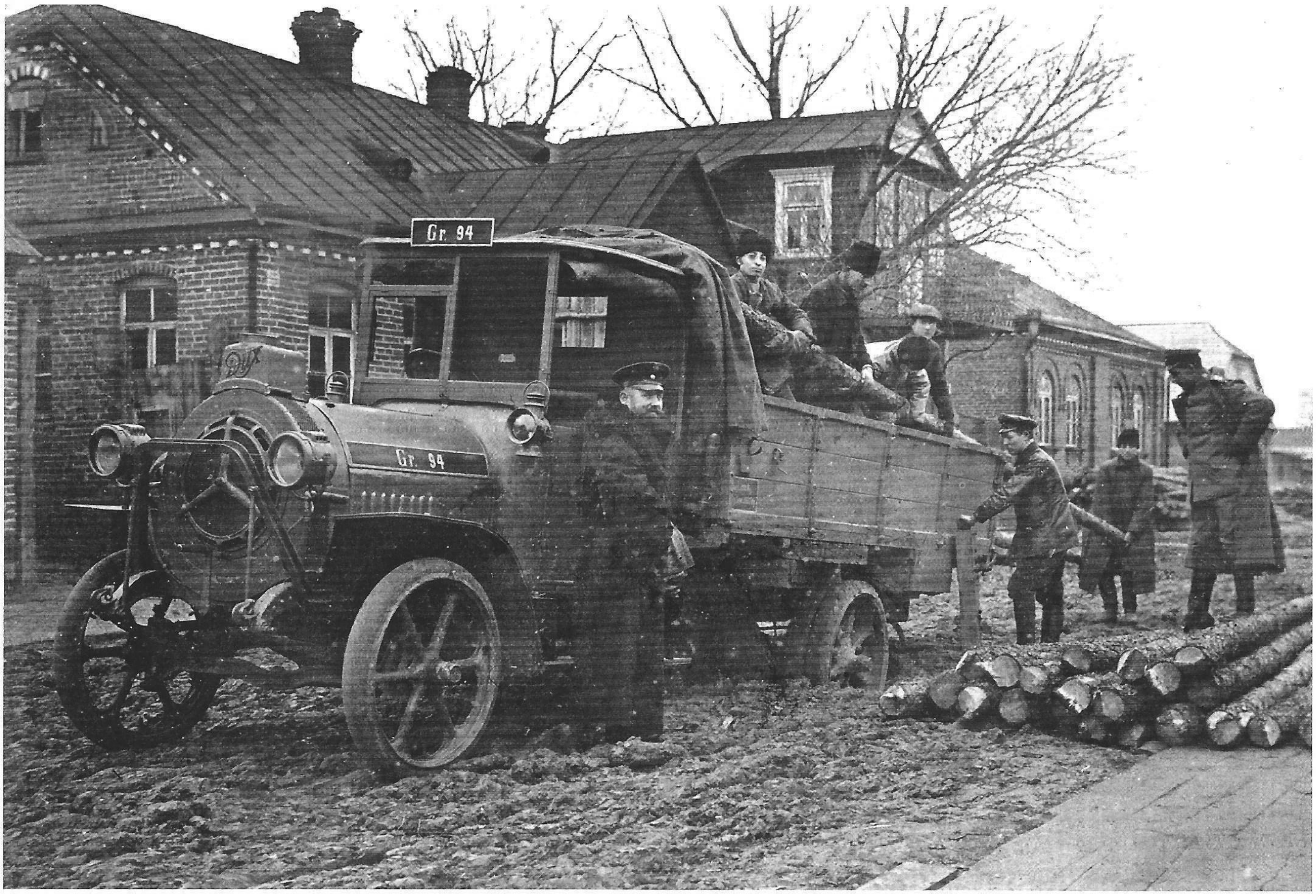
1895 saw the launch of Polyphon Musikwerke that built jukeboxes, orchestrions and musical boxes. To expand their range, from 1904 Polyphon Werke began building passengers cars and delivery vans based on US models such as the Curved Dash Oldsmobile Runabout under the name Polymobil Gazelle. In 1909 the company from Leipzig was renamed Polyphon Werke AG, Abt. Duxwagen, and from 1909-18 it built a number of passenger cars developed internally and named E12, D12, G21, F6, K24 and G10.

Also in 1909, a department for trucks was created under the trademark Dux to answer the military's call for a *Heeresmodell*. Dux consequently developed a 3.5-ton 30hp *Subventionswagen* subsidy truck. In 1913 followed a commercial model, the LKL 1 1.5-ton truck also with a 30hp engine. In 1914 the company changed its name to Dux-Automobilwerke AG.

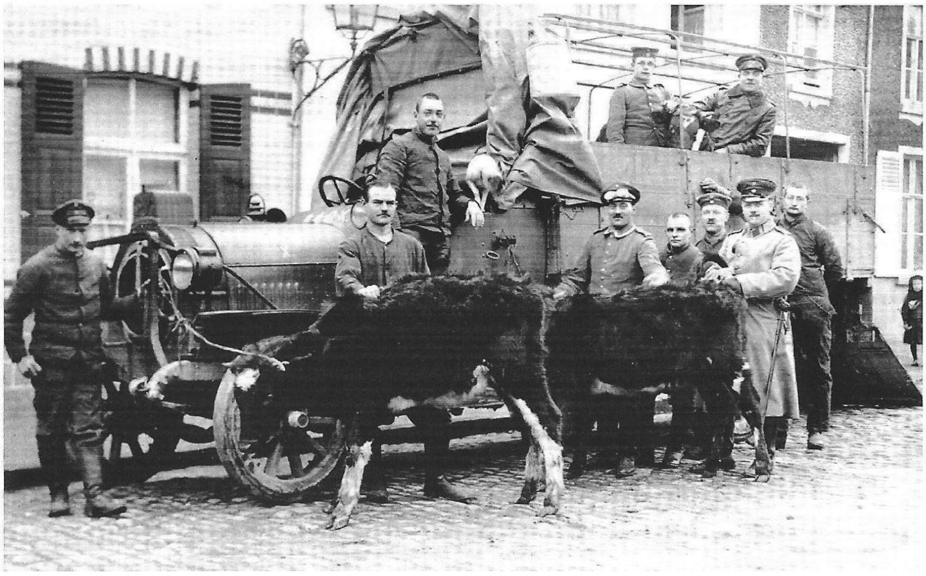
Pre-war and wartime production comprised only three types:

°	LO	3-ton	powered by a 4-cylinder 35hp 4714cc engine
°	LO *Armeelastzug*	5-ton	powered by a 4-cylinder 50hp 5699cc engine
°	LO	3.5-ton	powered by a 4-cylinder 50hp 4396cc engine

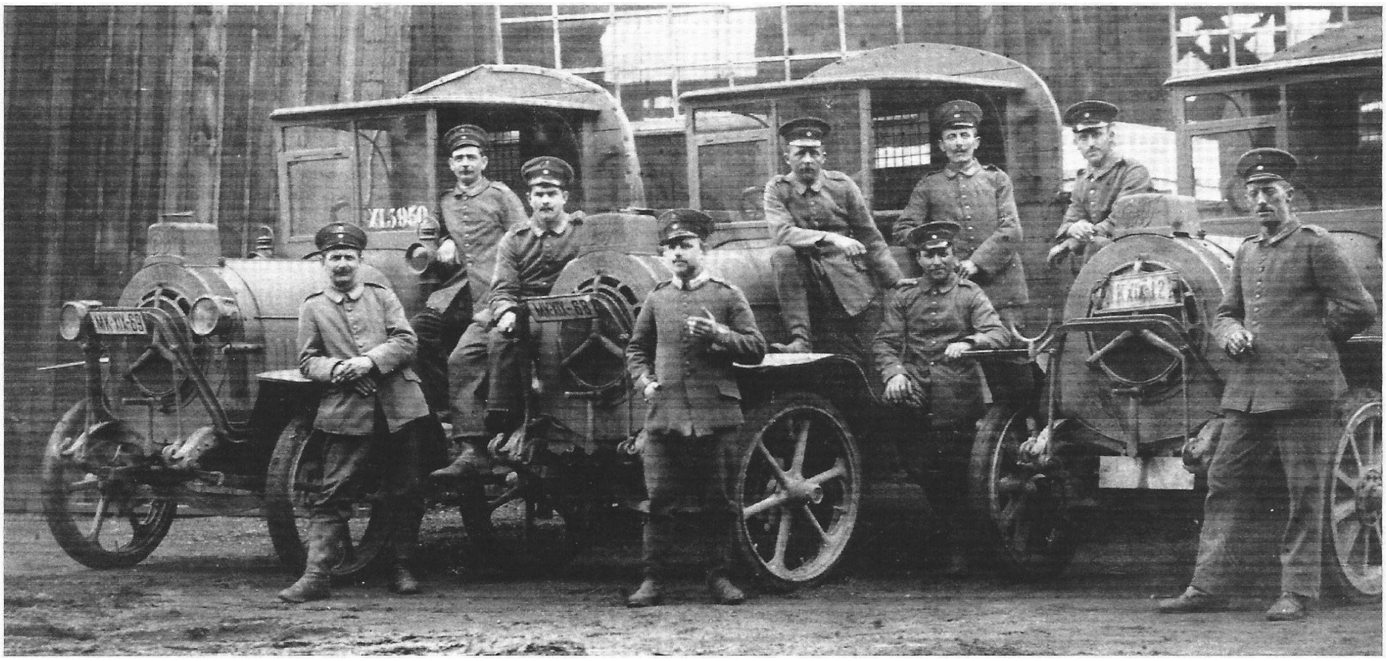
Withonly about 300 militarised models produced during the war, most of these the 3-ton and 5-ton models, Dux trucks were a rare sight in Imperial German Army service.



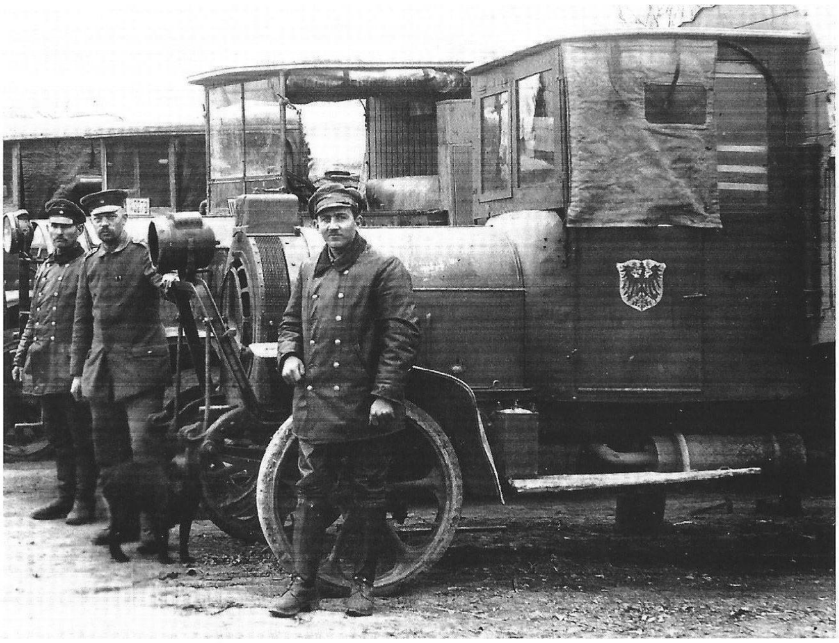
While German pre-1918 truck production created many designs, most of these copied proven designs of others, thus creating a large number of "almost lookalikes". It sometimes requires a magnifying glass to identify the tiny changes to radiators and to link them to a specific make. Dux trucks are a prominent exception to this rule, as they can easily be identified by the unique radiator design somewhat resembling the furnace chamber lid of a steam locomotive. It is a copy of the French centrifugal radiator by Goudard et Mennesson also used e.g. with de Dion Bouton buses. Note also the 'Dux' lettering on the casing of the radiator filler neck, and the '*3000kg*' payload rating on the front section of the cargo bay side, denoting a Dux LO 3-ton model. The unusual licence plate in black with white letters, also repeated on the side of the engine compartment, is that of *Armee-Abteilung Gronau* that was deployed to the Eastern Front in 1916-17. Credit: Jochen Vollert Collection



As with many other trucks of the period, pre-war Dux models featured a soft-top cab, a component that was changed to a hardtop during wartime production. Locally confiscating food and livestock in the occupied territories was a daily routine for the German Army. Here three calves are being prepared to further the German war effort. The pre-war 3-ton or 3.5-ton Dux LO shows an unusual marking of *Brieftauben-Abteilung Ostende X* (10th Carrier Pigeon Detachment Ostende) on the bonnet and in front of the open cab.
Credit: Jochen Vollert Collection



Three Dux 3-ton/3.5-ton trucks of an unidentified unit have hardtop cabs, absent headlights and the Dux-typical brush guard, tilted forward. The '*MK*' licence plates (*MK* for *Militär-Kraftwagen*, or military motor vehicle) denote that these trucks were not serving on the front yet in the *Reichsgebiet* (Fatherland). The '*XIX*' denotes the military district of Leipzig.
Credit: Jochen Vollert Collection



This left-side close-up of a Dux LO front end reveals some interesting details. The air intake is not only on the front but also circular around the radiator, the exhaust muffler is situated under the driver's cab, and a large single headlight is mounted on the brush guard rather than the four standard headlights. Note also the marking of a Prussian crest on the assistant driver's door and the fitted winterisation kit.
Credit: Jochen Vollert Collection

03.14 Lloyd/Hansa-Lloyd / Lloyd/Hansa-Lloyd Trucks

The Norddeutsche Automobil- und Motoren-Fabrik AG (NAMAG) syndicate was founded in Bremen in 1906 by Heinrich Wiegand, then director general of Norddeutscher Lloyd, the famous shipping agency. It was thus only logical that the trademark Lloyd be chosen for motor vehicle products of NAMAG. Based on licences of other companies, NAMAG launched its production of electro-powered 1.5-ton, 3-ton and 5-ton trucks, buses and delivery vans. In 1912, NAMAG began to build combustion-engined 5-ton 40hp Lloyd *Armeelastzug* truck-trailer combinations for the military.

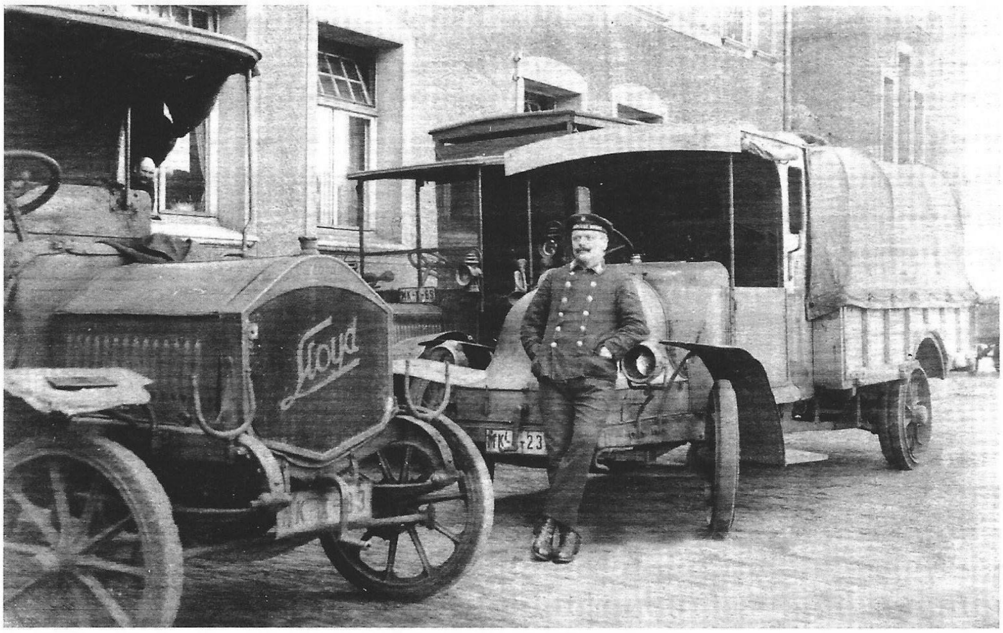
The year 1913 saw the purchase of Hansa-Werke in Varel by NAMAG. Hansa had been founded in 1904 and had mostly built passenger cars and delivery vans. In 1914, as a result of the amalgamation with Hansa, NAMAG was renamed Hansa-Lloyd-Werke AG.

Production from 1906-12 remained rather limited, with only approximately 250 vehicles in the 1.5-ton to 5-ton range. From 1913, however, production figures exploded and included the following types:

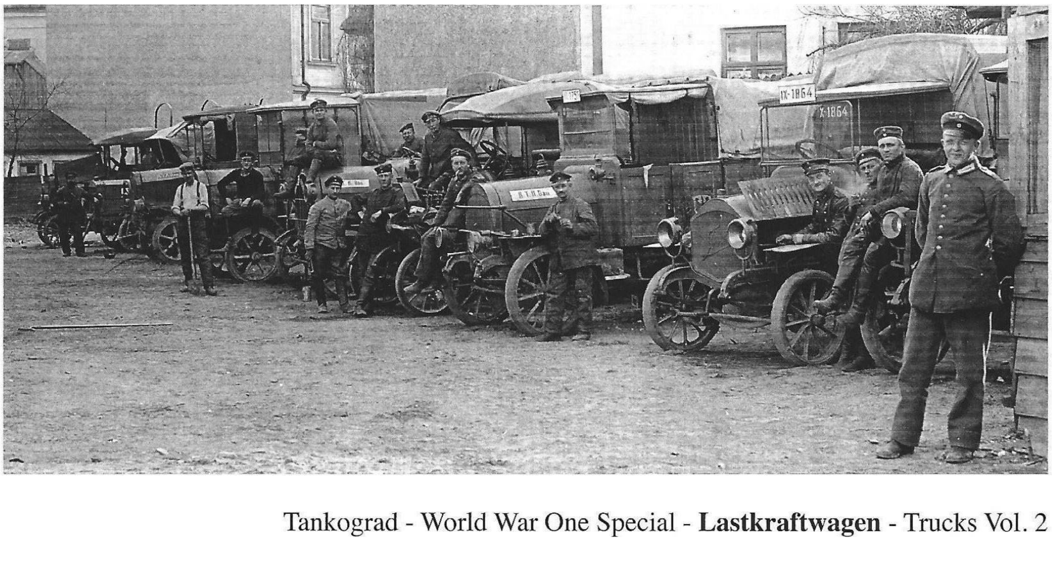
°	2.5-ton	powered by a 4-cylinder 35hp 3684cc engine	(700 built from 1913-15)
°	2.5-ton	powered by a 4-cylinder 50hp 3560cc engine	(30 built in 1914)
°	3.5-ton	powered by a 4-cylinder 50hp 5509cc engine	(5,400 built from 1913-18) *
°	5-ton	powered by a 4-cylinder 50hp 7359cc engine	(150 built in 1913)
°	5-ton	powered by a 4-cylinder 60hp 8225cc engine	(4,500 built from 1914-18) *

The listed production figures would have made Hansa-Lloyd the most important manufacturer of German trucks in wartime. It can also be assumed that the bulk of output was earmarked for delivery to the military. However, the listed facts (*) do not correspond with any forensic analysis of surviving photographs from the Great War, as Hansa-Lloyd trucks made no bigger appearance than other major players in the industry. This discrepancy is in fact a riddle that remains unsolved to the present day.

Yet another fact is that hundreds of Hansa-Lloyd trucks were found on the factory's premises after the war – technically complete but without rubber tyres as they could not be delivered due to a rubber shortage.

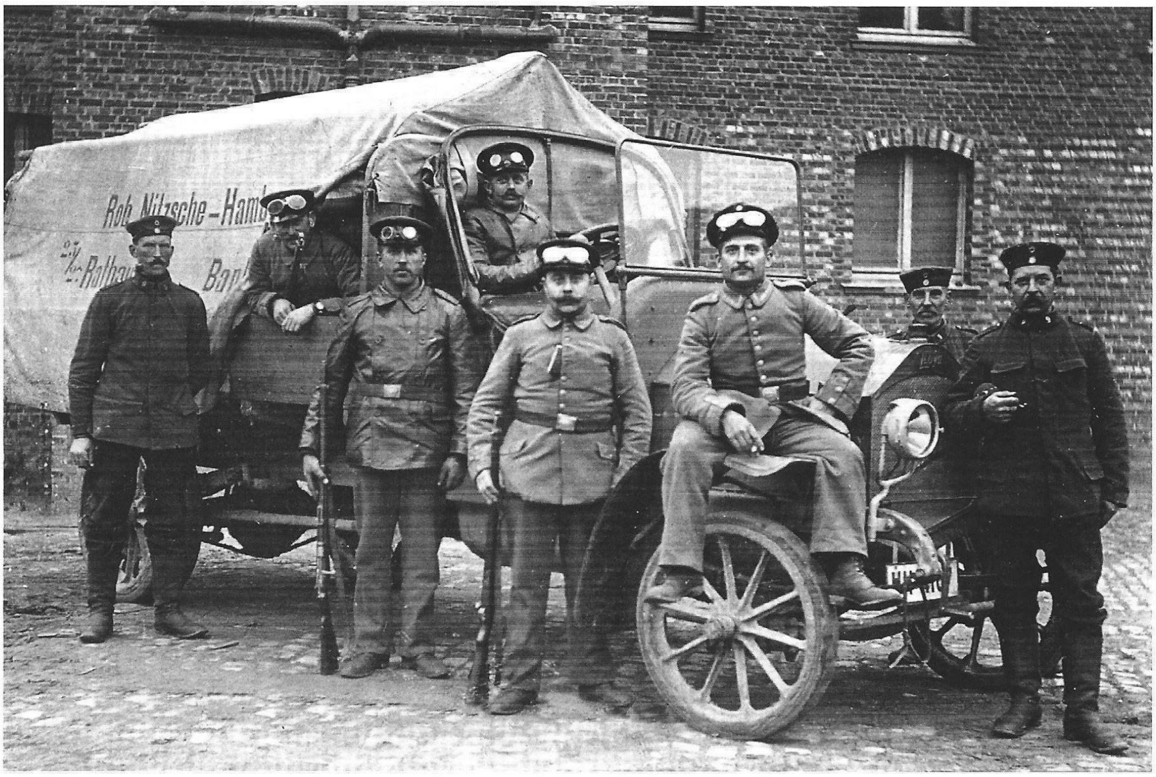


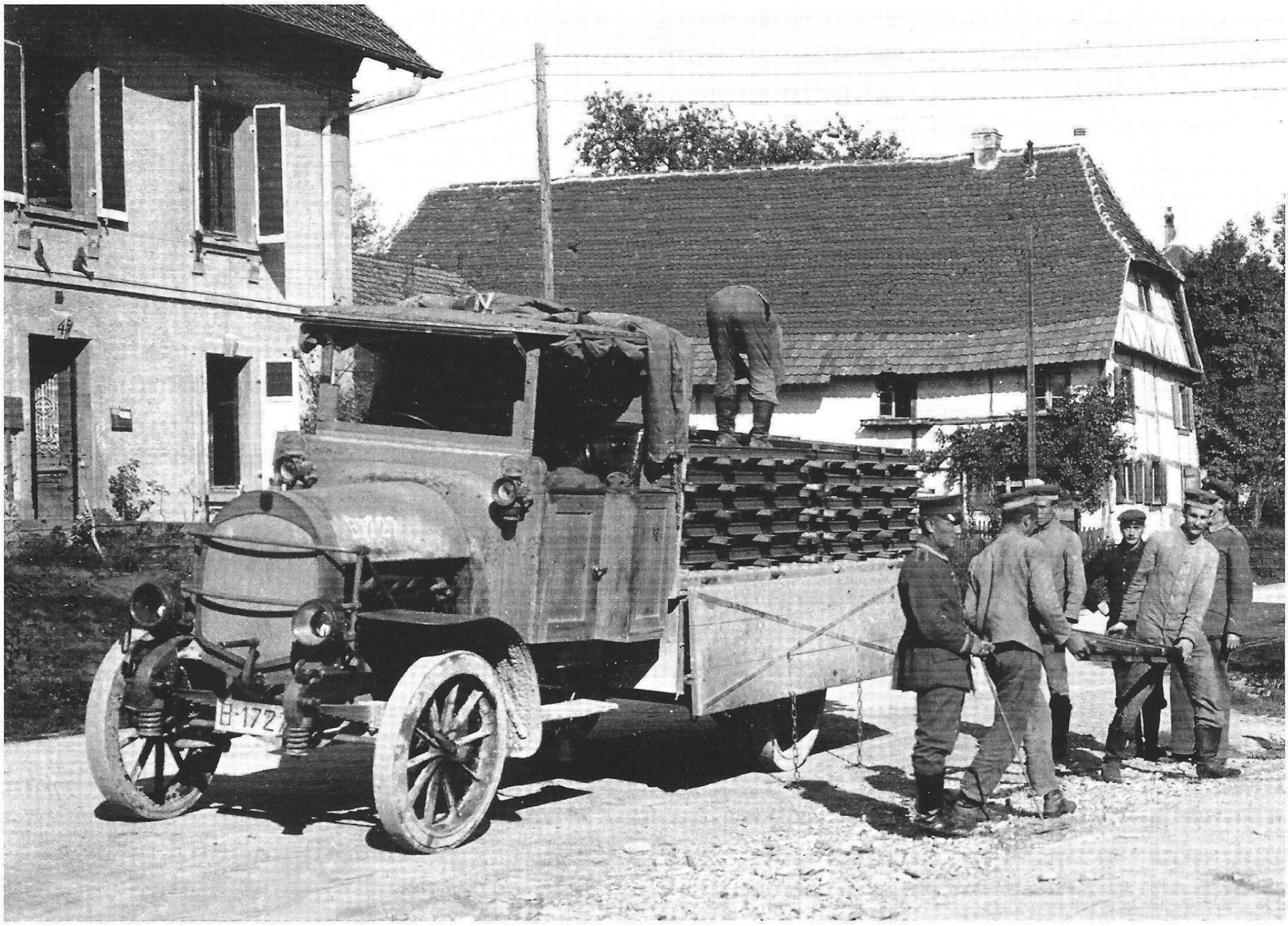
By sheer numbers on record, Hansa-Lloyd trucks should have made up a large percentage of Imperial German Army trucks, yet they hardly ever appear in photos. The Lloyd logo is visible on the radiator of this truck; it was introduced in 1906 and remained on trucks of NAMAG up till amalgamation with Hansa-Werke in 1914. From then onwards, Hansa-Lloyd trucks no longer featured company name lettering. In consequence, the partially visible truck in this photo is a NAMAG-built Lloyd of the pre-1914 era; note the Lloyd lettering in brass letters on the radiator front and embossed on the upper end of the radiator casing. The '*MK*' licence plate puts the vehicle in the *Reichsgebiet*. The truck in the background remains unidentified, yet the low cargo bay shows it is from an impressed commercial-type range.
Credit: Jochen Vollert Collection



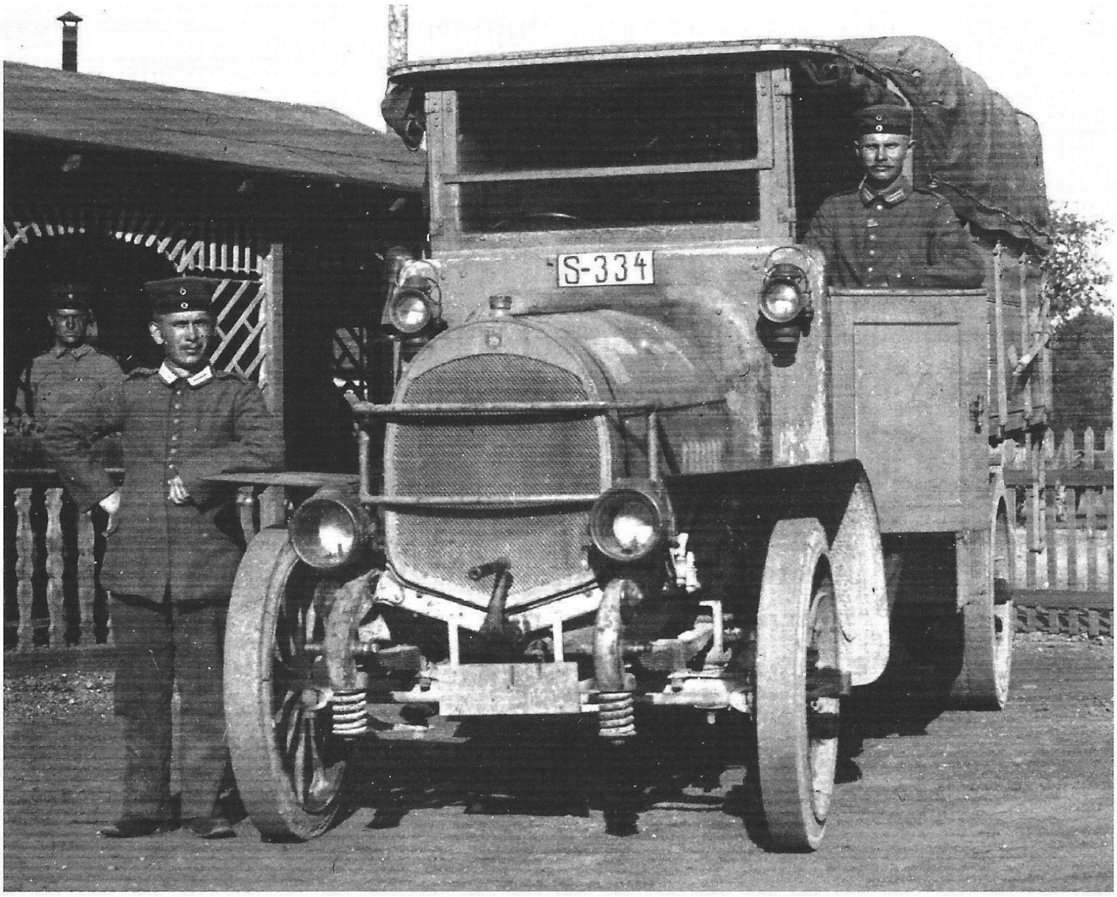
Eight trucks of eight different makes in one unit: the dilemma of the German motor vehicle supply chain is here visible in one picture. The truck to the right is once more a pre-1914 impressed commercial NAMAG-built Lloyd with typical lettering on the radiator front and upper end. Note also the typical NAMAG-built Lloyd "octagonal" radiator shape with the pointed lower and rounded upper ends. The unit '*A.T.A. Dau*' could not be identified.
Credit: Jochen Vollert Collection

This is another impressed commercial NAMAG-built Lloyd truck, as can be clearly identified by the embossed pre-1914 lettering on the radiator's upper casing, and in particular by the tarpaulin that still features painted-on details of the former civilian owner. The photo is dated November 1914. Interesting to note is the combination of a folding soft-top roof and windscreen. Credit: Jochen Vollert Collection

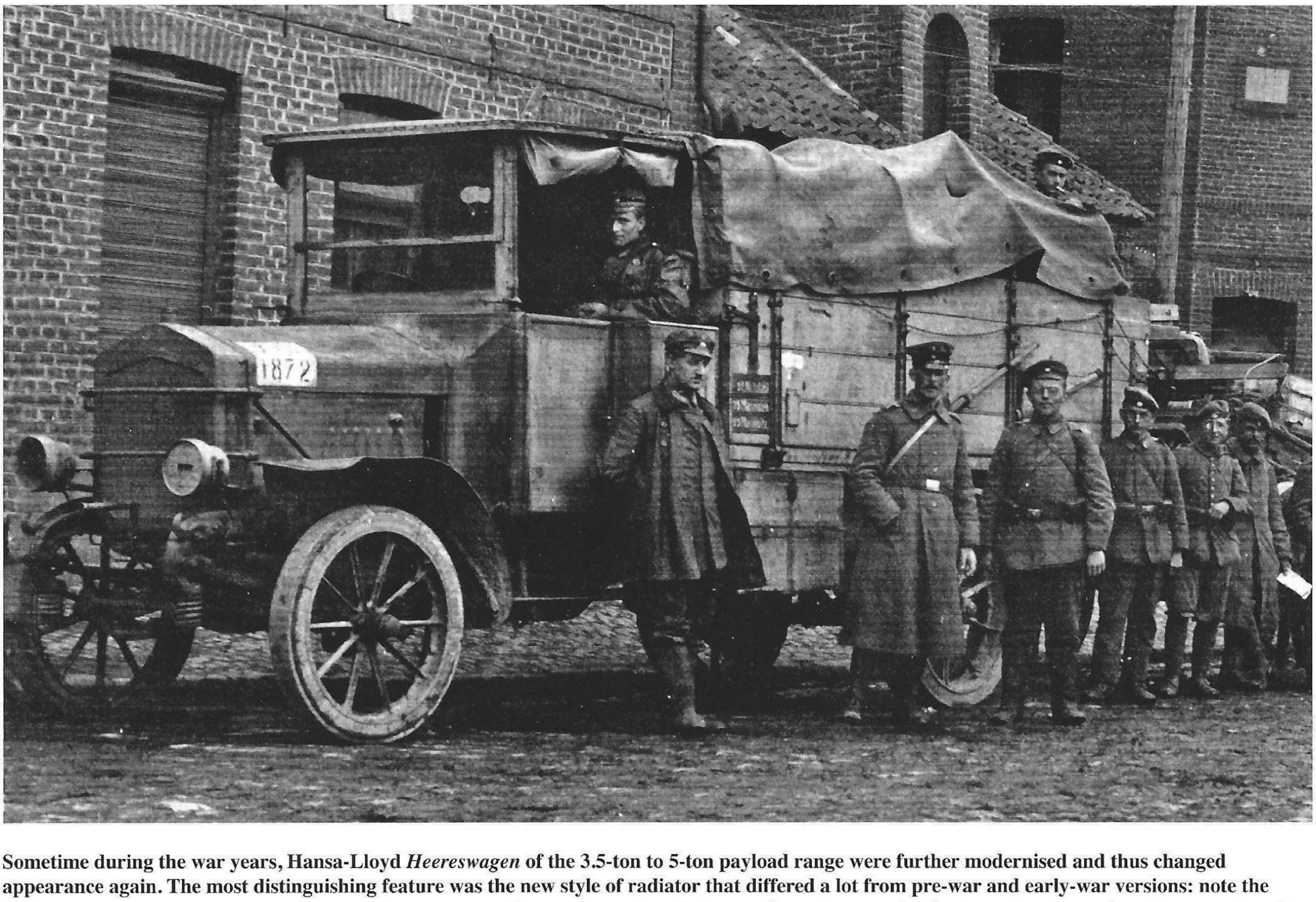




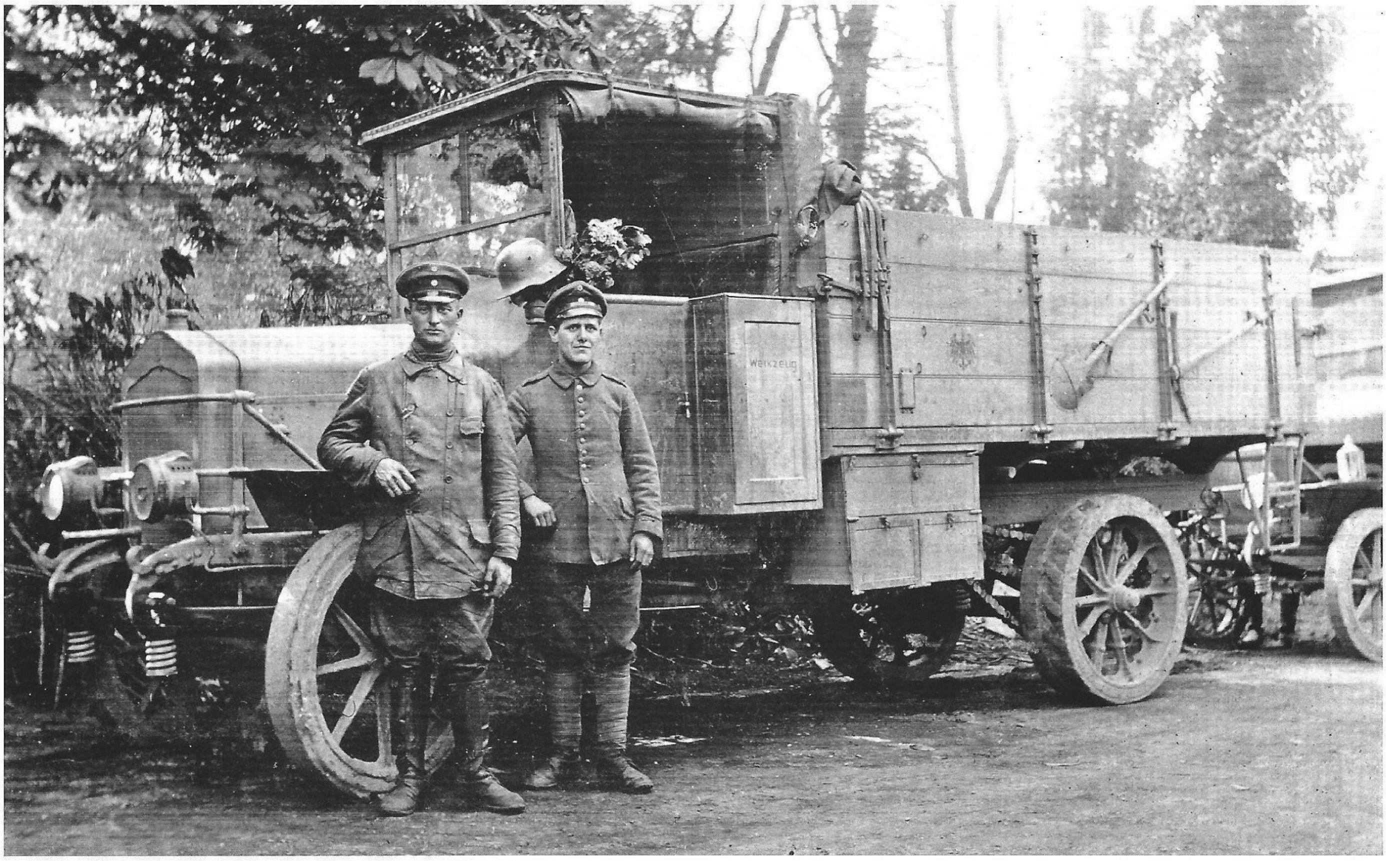
From 1914, NAMAG-built Lloyd trucks became Hansa-Lloyd trucks. Along with the change in designation came a higher engine compartment that required a higher radiator but which still resembled the older type with the pointed lower end and rounded upper end. Also revised were the sides of the engine compartment, with now only seven rather than 14 vertical ventilation louvres. The licence plate reveals that this truck is serving in *Armee-Abteilung B*. Credit: Jochen Vollert Collection



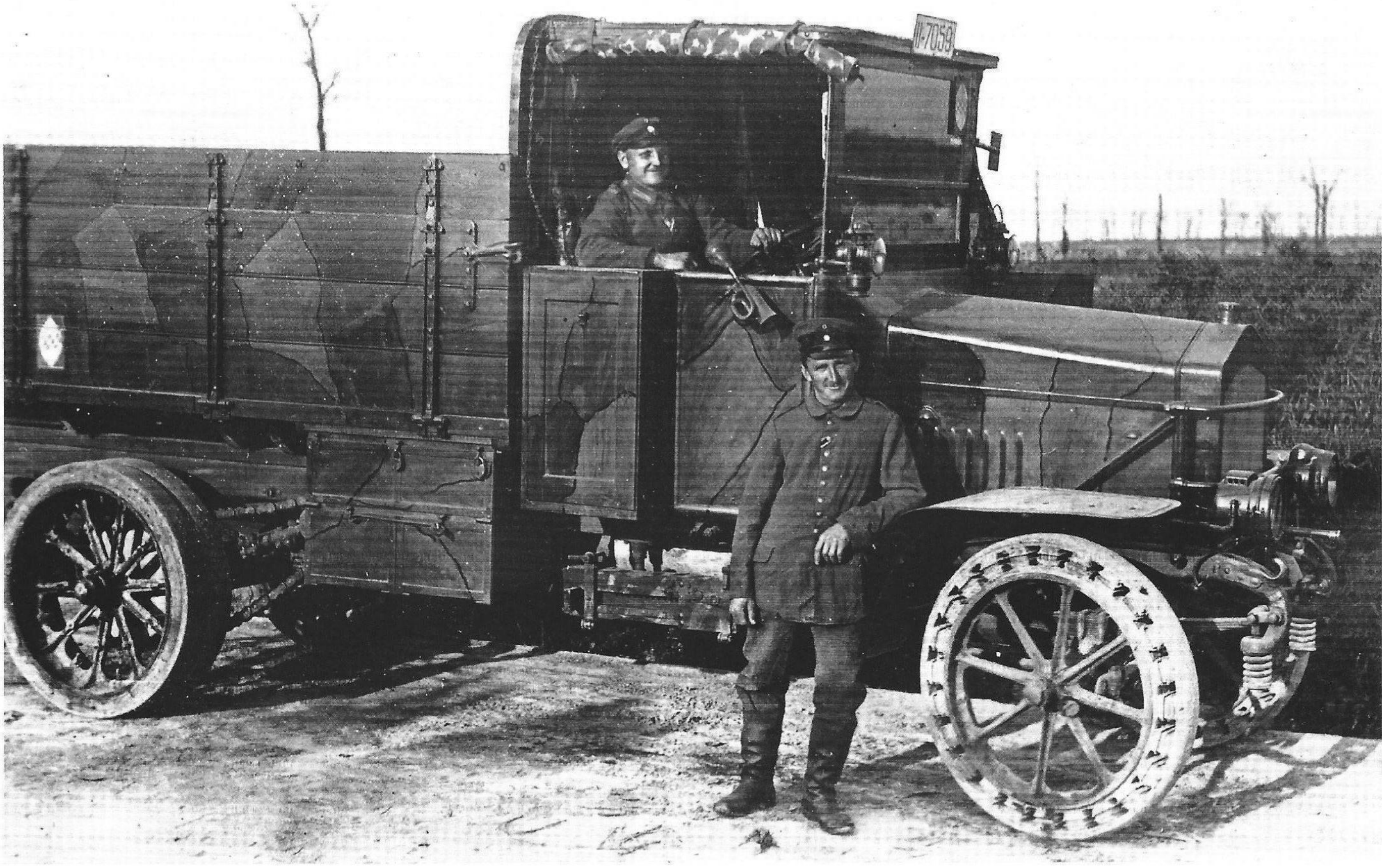
Another 3.5-ton to 5-ton truck *Heereswagen* built to military specifications and featuring, along with the general Hansa-Lloyd design changes, military components such as a radiator brush guard, increased coil spring suspension on the front axle, a military-grade closed cab with hardtop roof and a windscreen. A very close look reveals that this series of trucks still has the Hansa-Lloyd badge fitted to the upper end of the radiator casing. The '*S*' in the licence plate denotes a vehicle belonging to the *Südarmee* (Army of the South) from 1915-18.
Credit: Jochen Vollert Collection



Sometime during the war years, Hansa-Lloyd *Heereswagen* of the 3.5-ton to 5-ton payload range were further modernised and thus changed appearance again. The most distinguishing feature was the new style of radiator that differed a lot from pre-war and early-war versions: note the flat bottom end in combination with the roof-type design of the upper end, and the now fully absent maker's placard and lettering. Note also that the rounded bonnet is now also roof-shaped. Credit: Jochen Vollert Collection



Another example of the modernised Hansa-Lloyd *Heereswagen* of the 3.5-ton to 5-ton payload range. Note the typical "cupboards" extending from the driver's as well as the assistant driver's sides of the cab. They contain *Werkzeug* (tools). Credit: Jochen Vollert Collection



This Hansa-Lloyd 3.5-ton to 5-ton *Heereswagen* features *Kriegsbedingte Notbereifung* and the so-called *Buntfarbenanstrich* multi-tone camouflage, both were in 1918 introduced for vehicles such as prime movers, armoured cars and tanks. It was so rare on trucks that this is one of only two available photographic proofs that it was applied on that range of vehicles as well. Credit: Jochen Vollert Collection

03.15 Horch / Horch Trucks

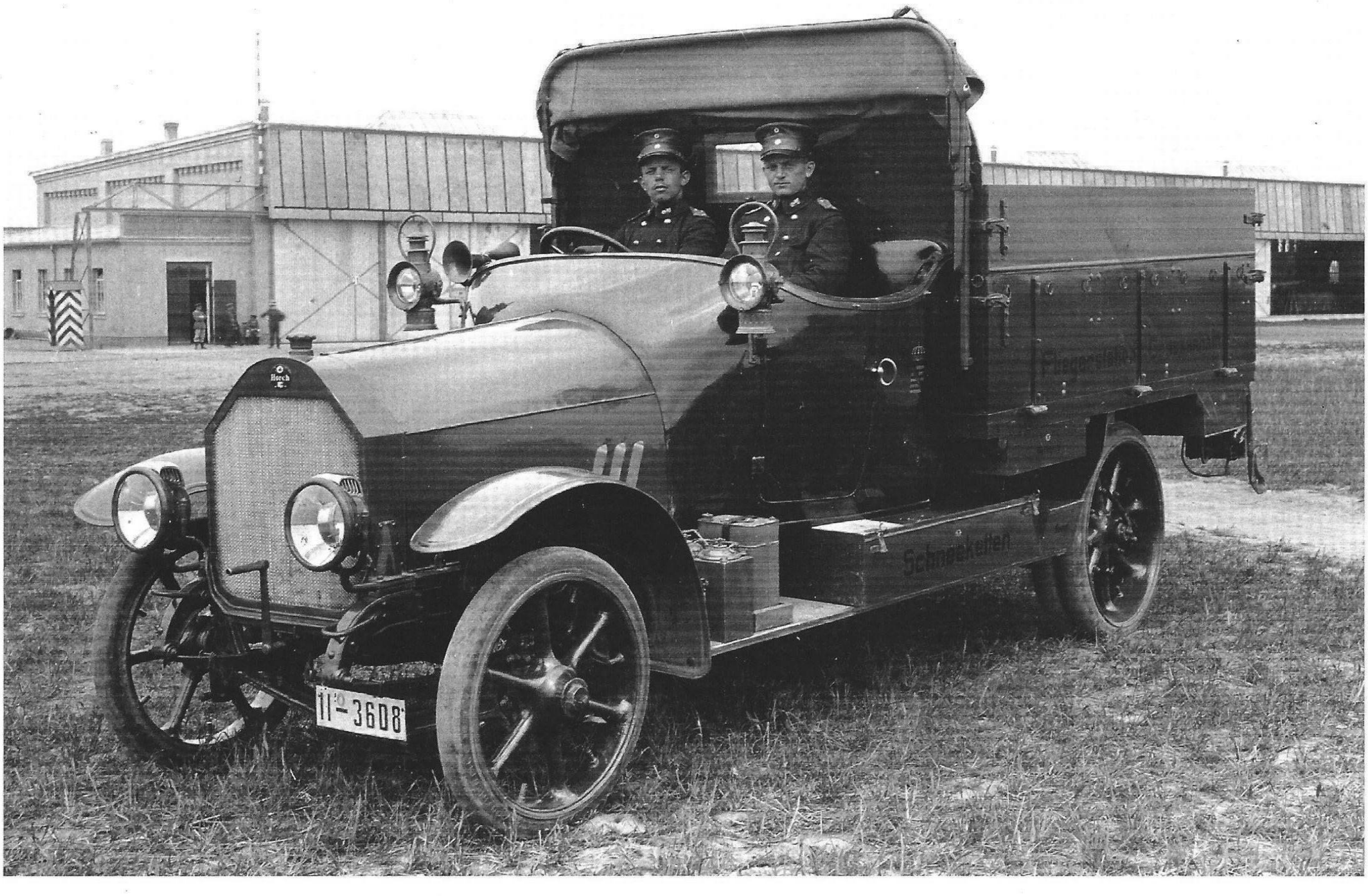
One pioneer of early German motor vehicle production was August Horch. He started his career at the Deutz gas engine works, and in 1896 he became the factory manager at the famous Benz Werke. In 1899 he founded his own company to produce passenger cars. Because of internal problems, in 1909 he left August Horch und Cie., Motorenwerke AG in Zwickau and founded another company, August Horch Automobilwerke GmbH, that in 1910 (after a legal dispute over the trademark Horch) would be renamed Audi Automobilwerke GmbH Zwickau in the city of Zwickau. In 1917 the original August Horch und Cie., Motorenwerke AG became Horch-Werke AG. Aside from passenger cars, Horch also built buses and trucks.

From 1910, Horch built light trucks such as the 1.5-ton Typ K delivery van that came in two engine versions of 25hp or 28hp. Also in 1910, the Typ S truck with a 55hp engine saw the light of day. From 1913 followed more delivery van types, the 1-ton Typ N and Typ O.

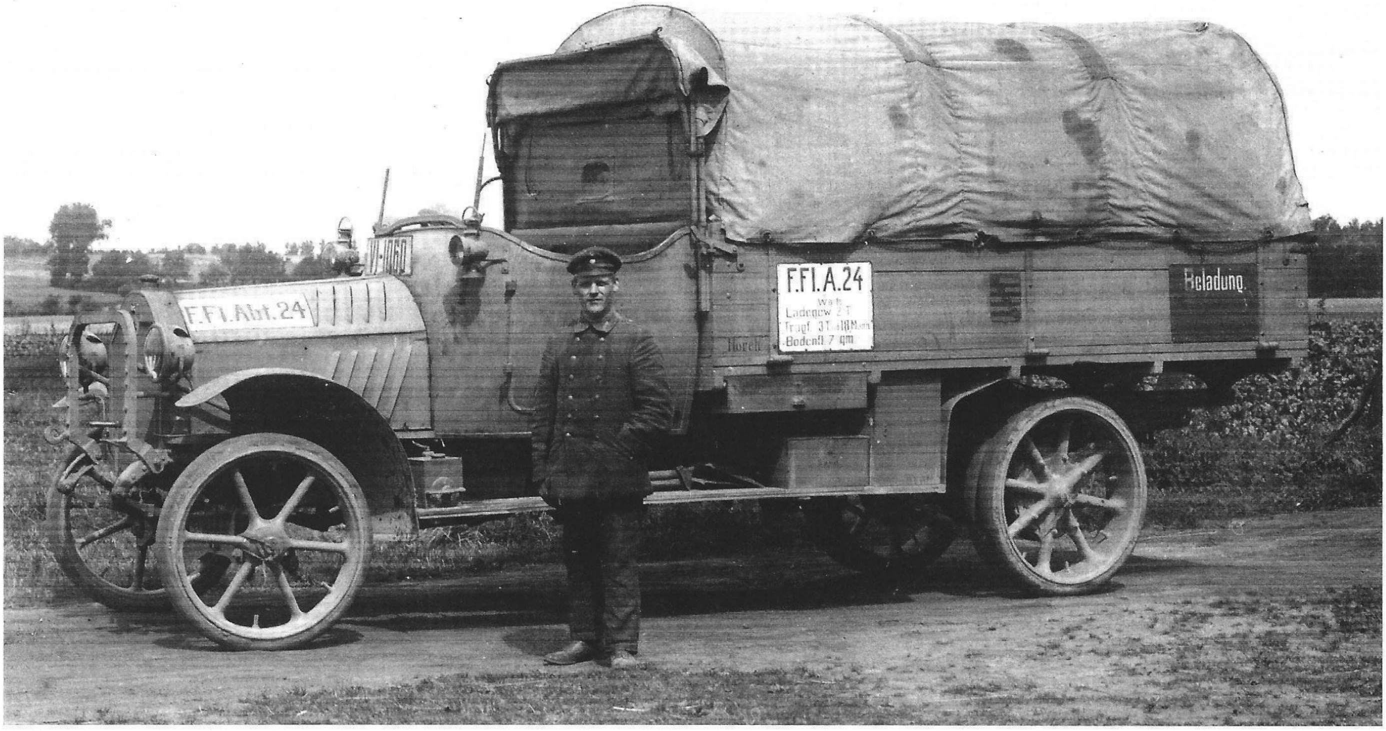
From 1913-14, the range was very much extended with trucks of higher payloads and which comprised of:

°	Typ N	1-ton	powered by a 4-cylinder 30hp 2612cc engine	(29 built from 1913-18)
°	Typ O	1.5-ton	powered by a 4-cylinder 40hp 3560cc engine	(204 built from 1913-18)
°	Typ P	2- to 3-ton	powered by a 4-cylinder 50hp 4710cc engine	(159 built from 1914-16)
°	Typ S	5-ton	powered by a 4-cylinder 55hp 6395cc engine	(11 built from 1913-15)
°	Typ KL	3-ton	powered by a 4-cylinder 42hp 6450cc engine	(1,100 built from 1916-18)
°	Typ SL	5-ton	powered by a 4-cylinder 80hp 8494cc engine	(58 built from 1914-17)

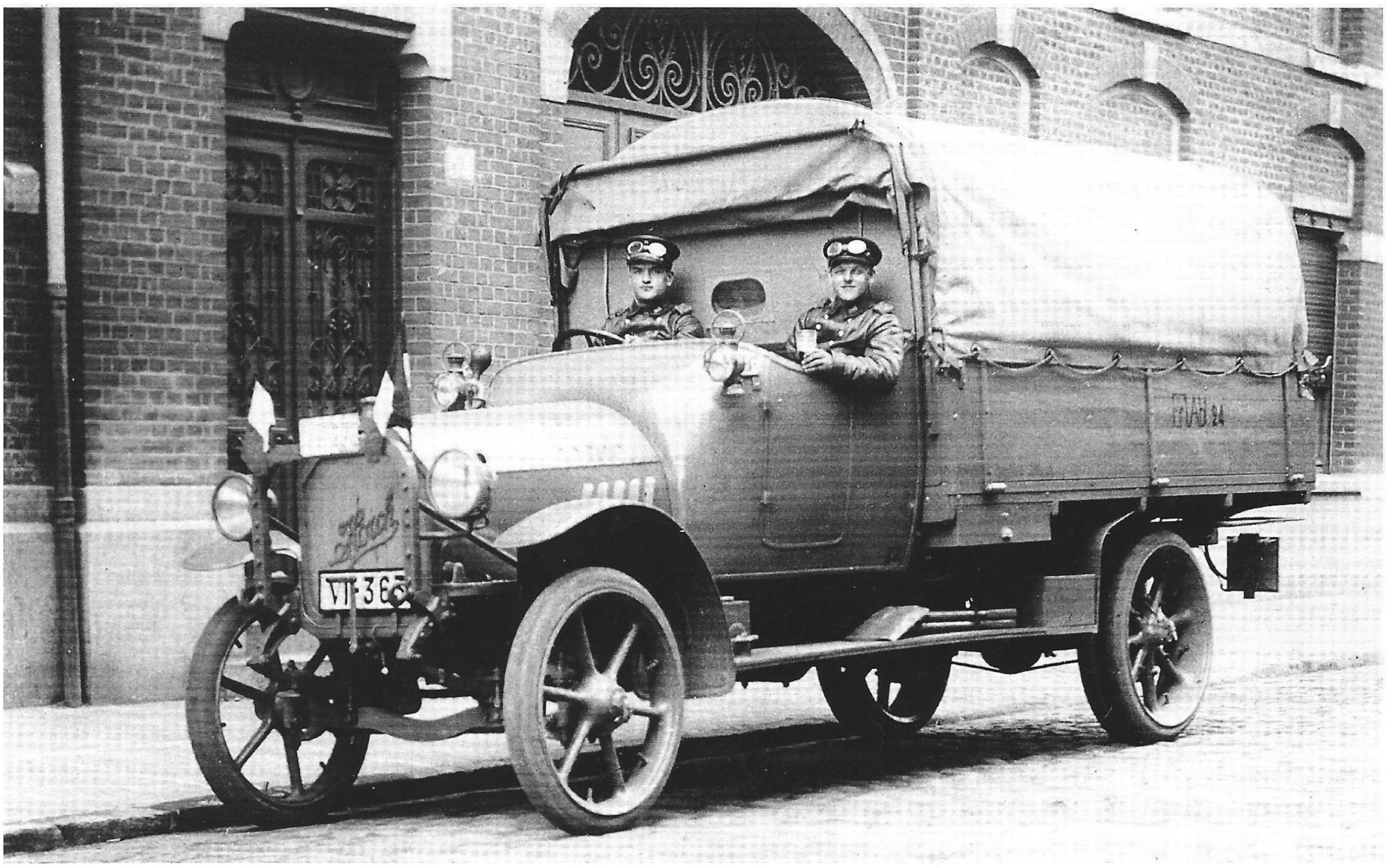
A total of 46 Typ P models were delivered as *Kavallerielastwagen* to the Royal Saxonian Army in 1914, a further 100 followed in 1915, and the last ones in 1916. The Typ KL 3-ton truck was designed by engineer Joseph Vollmer and was to become the role model for the *Regeldreitonner* standardised military 3-ton truck from 1916, and equipped with an engine reduced in power to 42hp.



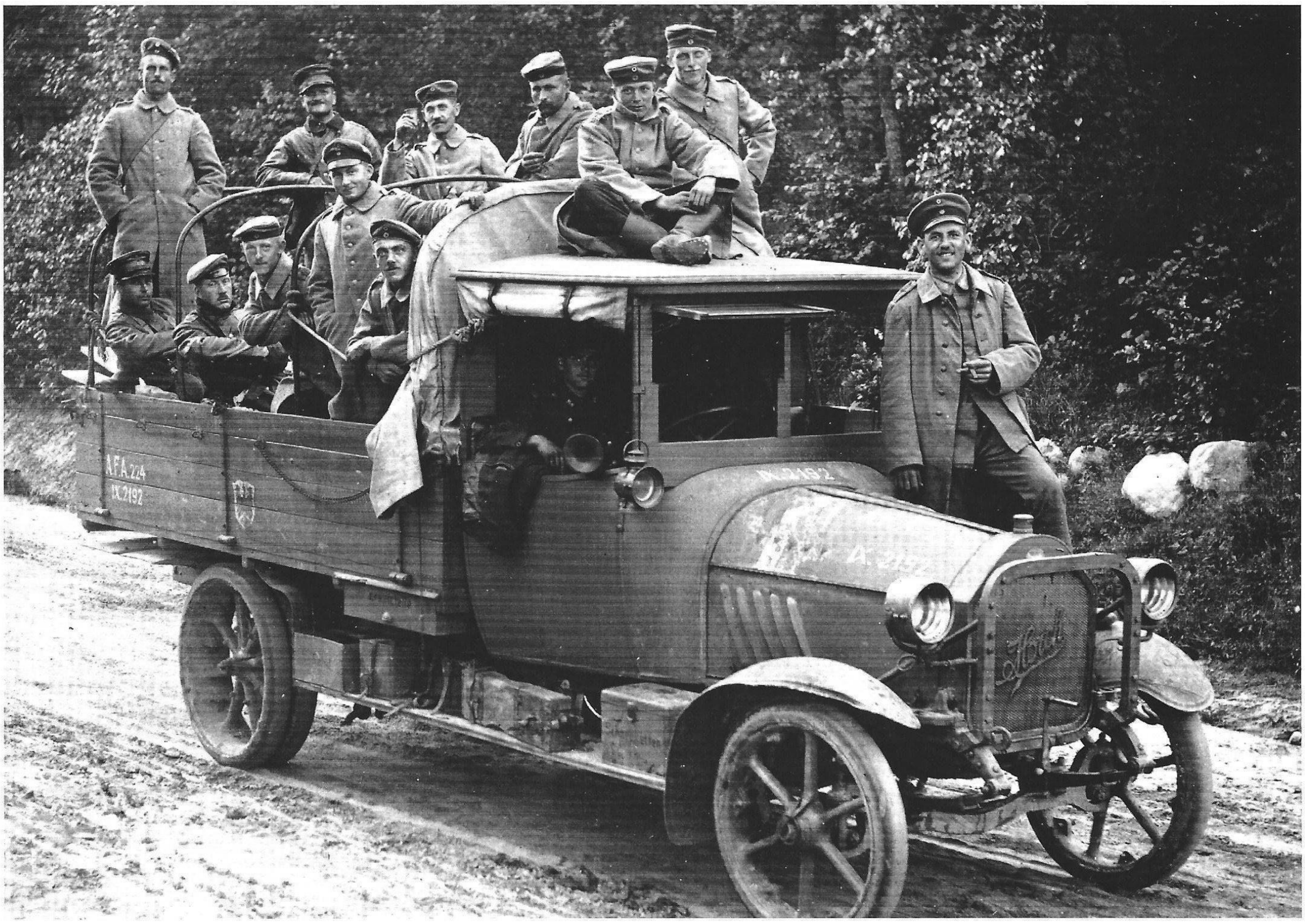
This is a *Kavallerielastwagen* Horch *Typ P* of 1914 vintage. Note the military-grade spoked metal wheels. A curious design feature on Horch trucks was the number of ventilation slots on the engine bay. From 1910 there were versions with three to ten slots in the engine compartment side covers, but later this changed to five slots in the sides and a further five in the bonnet. This pre-war truck, a 2- to 3-ton model, gives away the unit's location by the lettering on the cargo bay side panels: *Fliegerstation Grossenhain* (Grossenhain Airfield) in Saxony; note also the Saxonian crest next to the assistant driver's door. The '*II*' licence plate is that of the 2nd Army. '*Schneeketten*' means snow chains. Credit: Jochen Vollert Collection



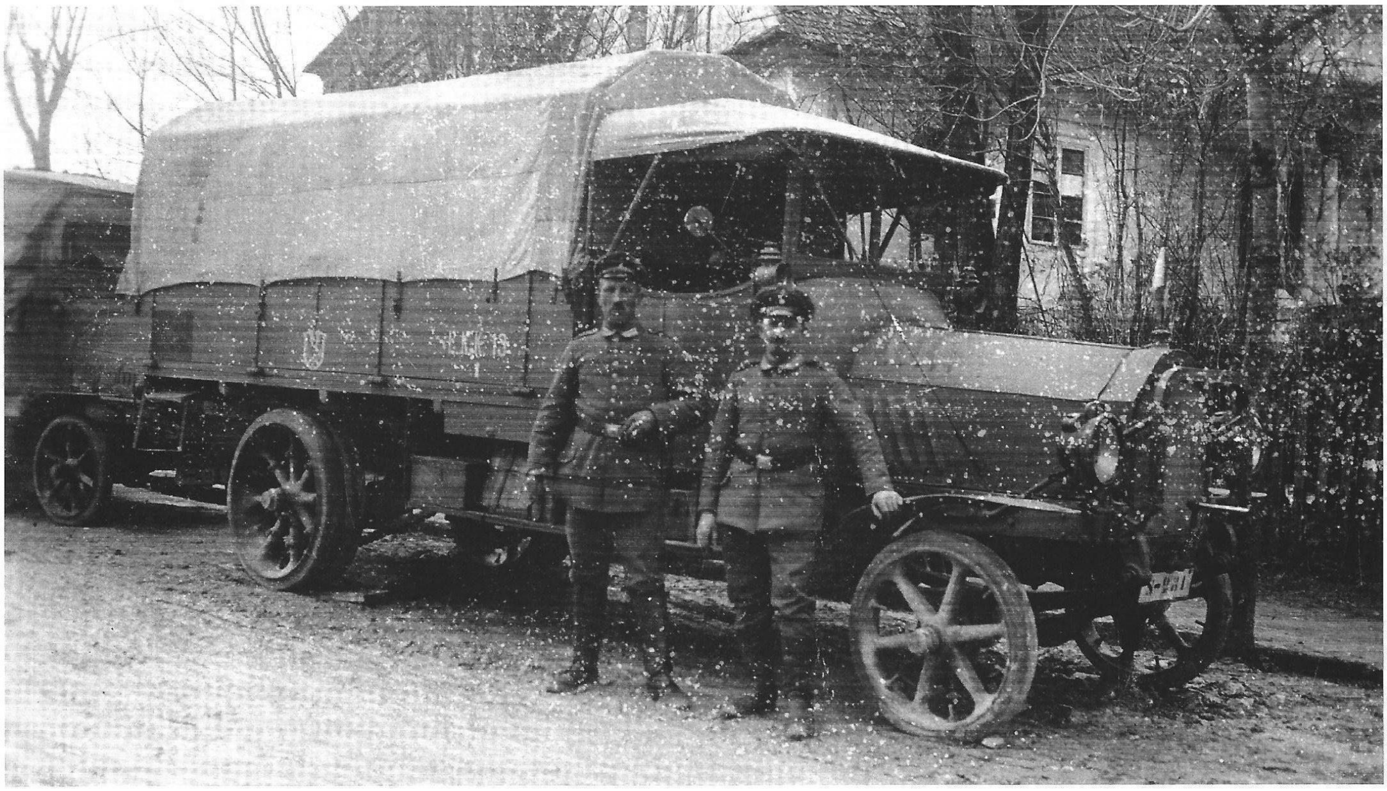
Pre-war production of Horch comprised types with payload ranges of 1 ton to 1.5 tons with the notable exception of a 5-ton model *Typ S*, of which only eleven were built. The truck in this photo is a *Typ P* that had a variable payload range from 2-3 tonnes. Typical for these early pre-1916 truck models is the soft-top cab. This particular vehicle in service with *Feld-Flieger-Abteilung 24* (24th Army Air Flight) carries a rare yet highly informative white placard listing: *Ladegewicht* (payload) *2,5 Tonnen, Tragfähigkeit* (maximum load) *3 Tonnen / 18 Mann* (3 tonnes or 18 soldiers) and *Bodenfläche 7qm* (cargo bay floor size $7m^2$). The unit was also kind enough to write the manufacturer's name Horch to the left of the placard, and added a Saxonian crest on the cargo bay side. The black field with the word *Beladung* (load) is for the listing of the carried load type in chalk.
Credit: Jochen Vollert Collection



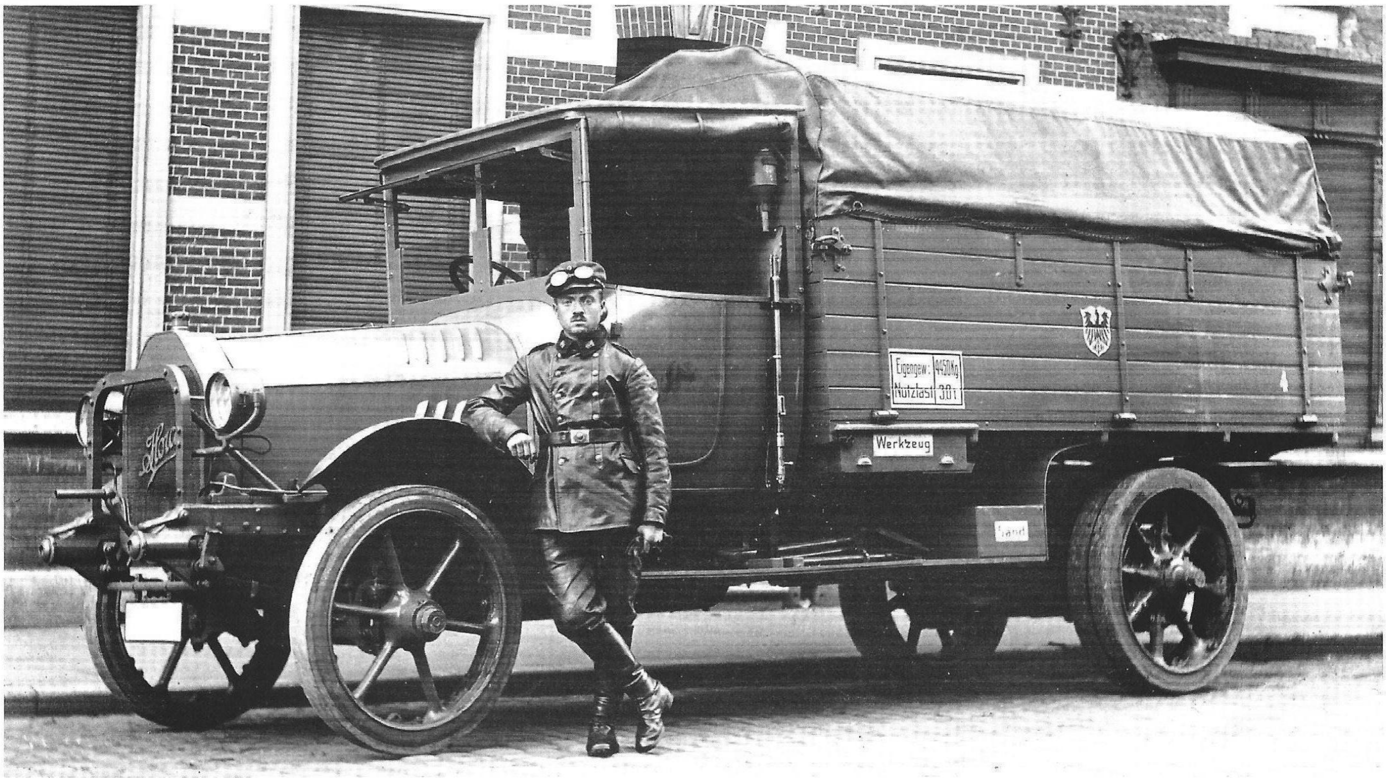
The soft-top once more discloses pre-war or early-war production for this Horch P model. The truck carries a licence plate of *VI Armee*, yet the lettering of *Feld-Flieger-Abteilung 24* on the cargo bay side should place it under *XVII Armee*. Credit: Jochen Vollert Collection



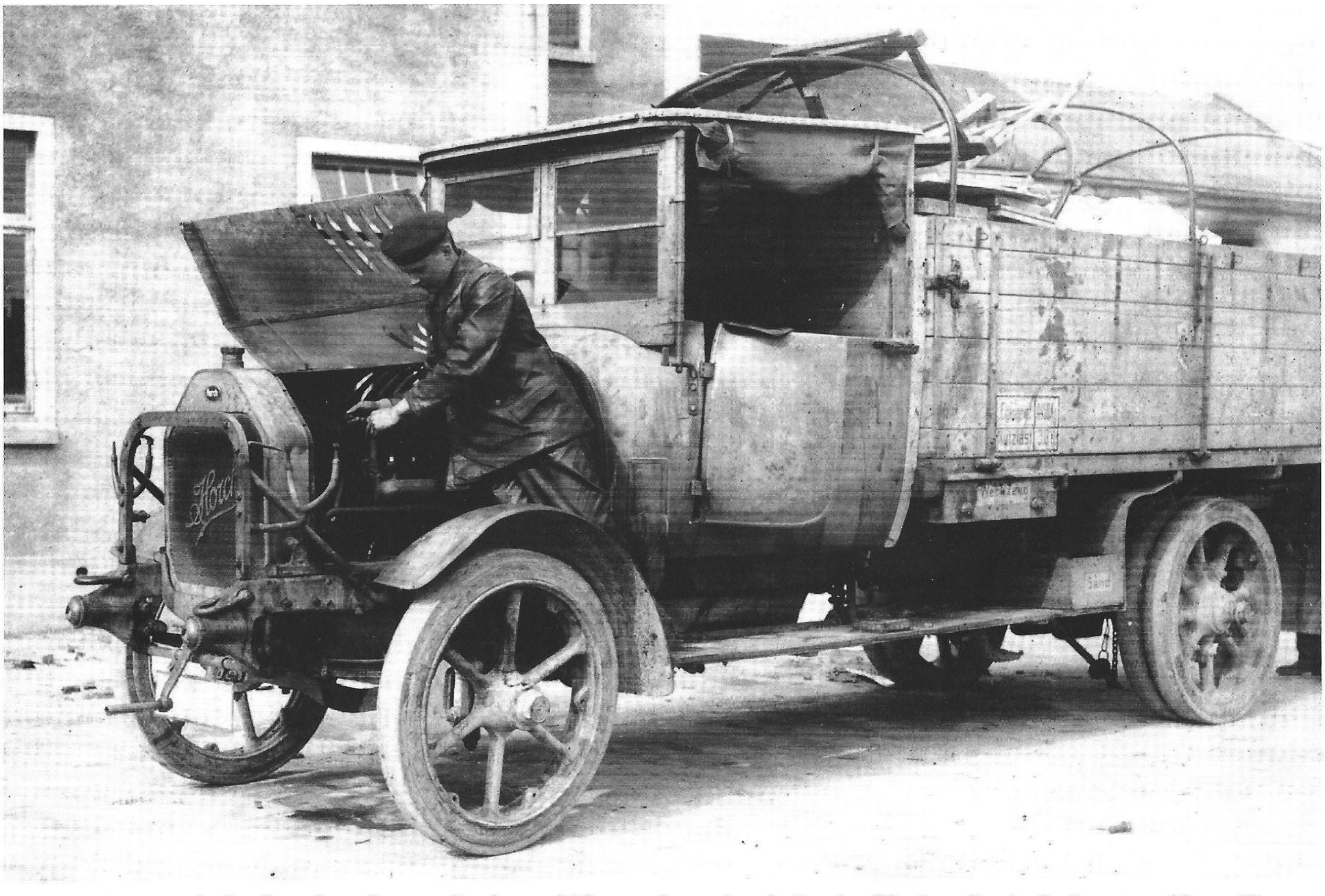
In service with *Artillerie-Flieger-Abteilung 224* of *IX Armee* this Horch late *Typ P* truck shows the closed cab introduced during wartime. The photo is dated August 1916. Also note the military hardtop cab and the military-grade radiator brush guard. Credit: Jochen Vollert Collection



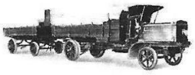
Although of extremely poor quality, this photo shows the rare *Typ SL* with a 5-ton payload, of which only 58 were built. This type can be identified by its chain drive, as most other Horch trucks had a Cardan drive. This truck is in service with the *Südarmee*. Credit: Jochen Vollert Collection

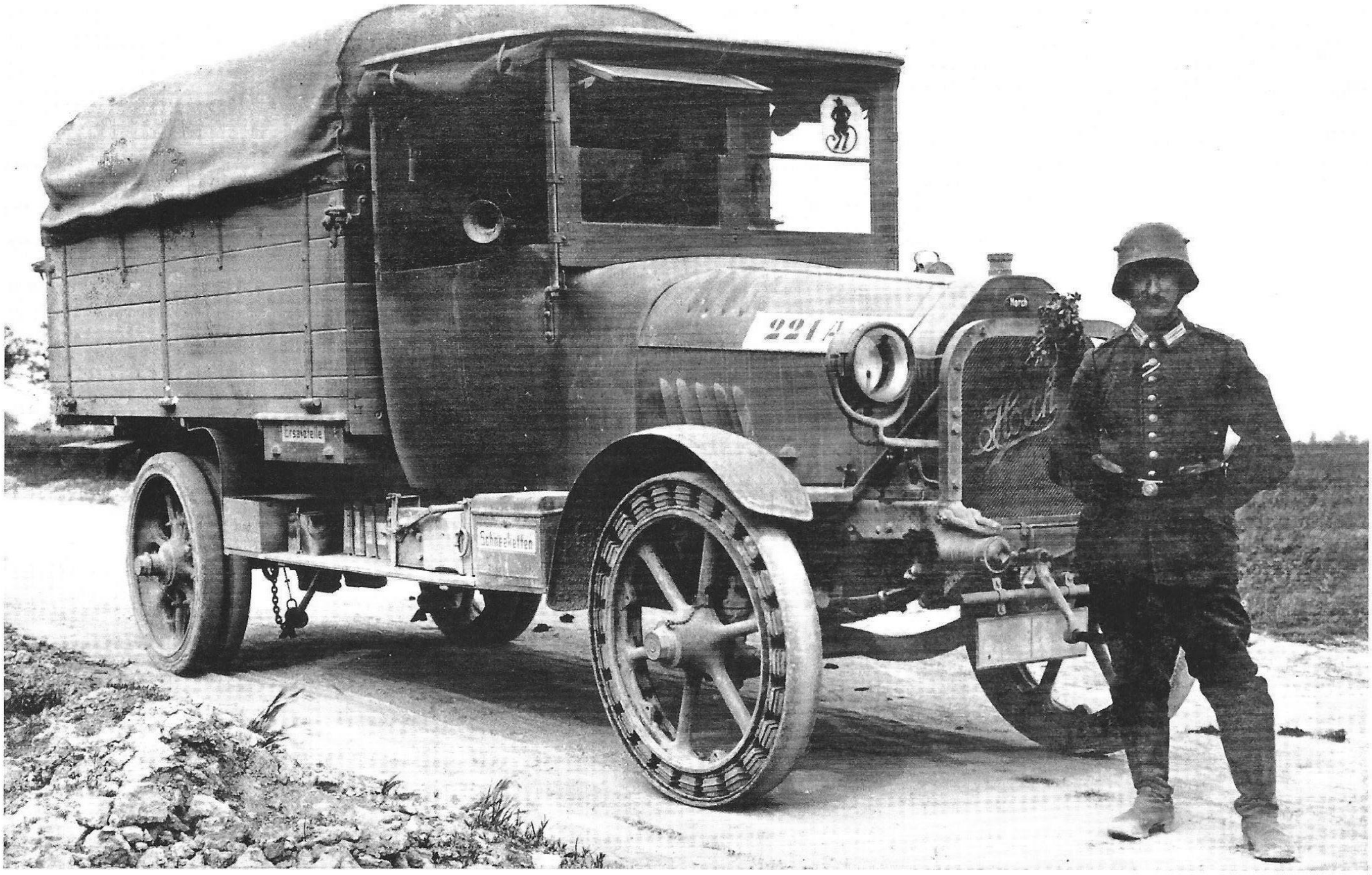


A pristine *Regeldreitonner Typ KL* 3-ton truck with the standard high side panels for the cargo bay serves as background for its driver employed by a Prussian unit in Gent in occupied Belgium in June 1917. The placard on the side panel reads: *Eigengewicht 4450 kg* (empty weight) and *Nutzlast 3.0 t* (payload). Oddly enough there was another KL 3-ton version yet with an empty weight of only *3570 kg*. Note also the markings for *Werkzeug* (tools) and sand. A particularly interesting feature is the external rifle holder next to the co-driver's door. Credit: Jochen Vollert Collection

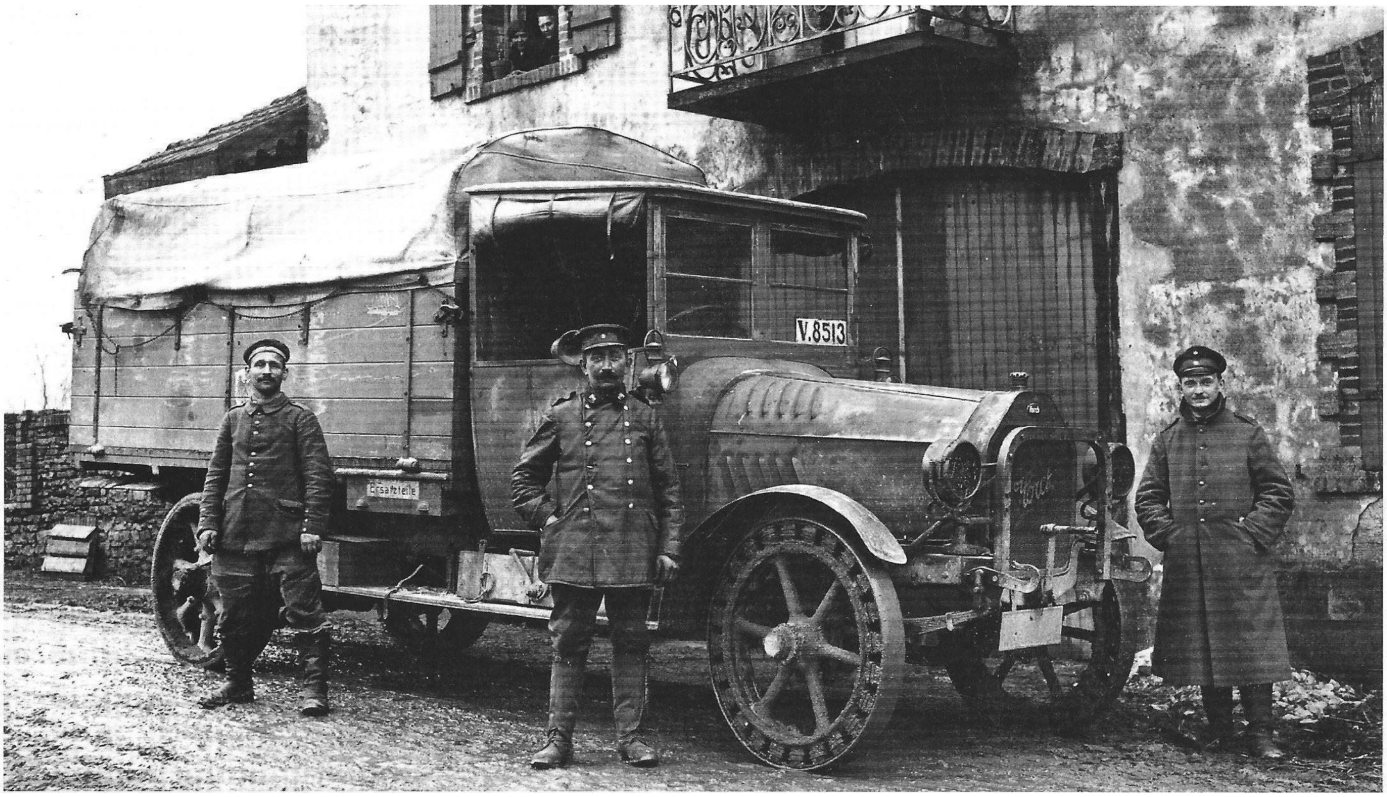


The same (!) truck as in the photo above, but now showing a vehicle severely war-torn, battered and beaten – the standard army workhorse. The photo is captioned *Seefliegerabteilung Warnemünde, Ostsee* (Naval Air Detachment at Warnemünde, Baltic Sea). Credit: Jochen Vollert Collection





The Horch KL 3-ton *Regel-Dreitonner* army truck was built from 1916 till the end of the war. These two photos were taken in May/June 1918. The trucks have already received the *Kriegsbedingte Notbereifung* emergency tyres on the front axle only, as was usual practice. Observe once more the black-on-white markings for the stowage boxes. The truck in the photo above features a unique marking of a "devil with clubfeet" on the windscreen, while the truck in the photo below carries a licence plate of the 5th Army, also on the windscreen. Credit: Jochen Vollert Collection



Taking a closer look at the front end of the leaf spring suspension on this KL 3-ton truck of 5th Army, it becomes clear that the "bottle-shaped" parts of the suspension are no longer there, and instead a tow hook was fitted. This leads to the assumption that there were two different versions of the KL 3. Potentially the one illustrated here is a late-war simplified version. Credit: Jochen Vollert Collection

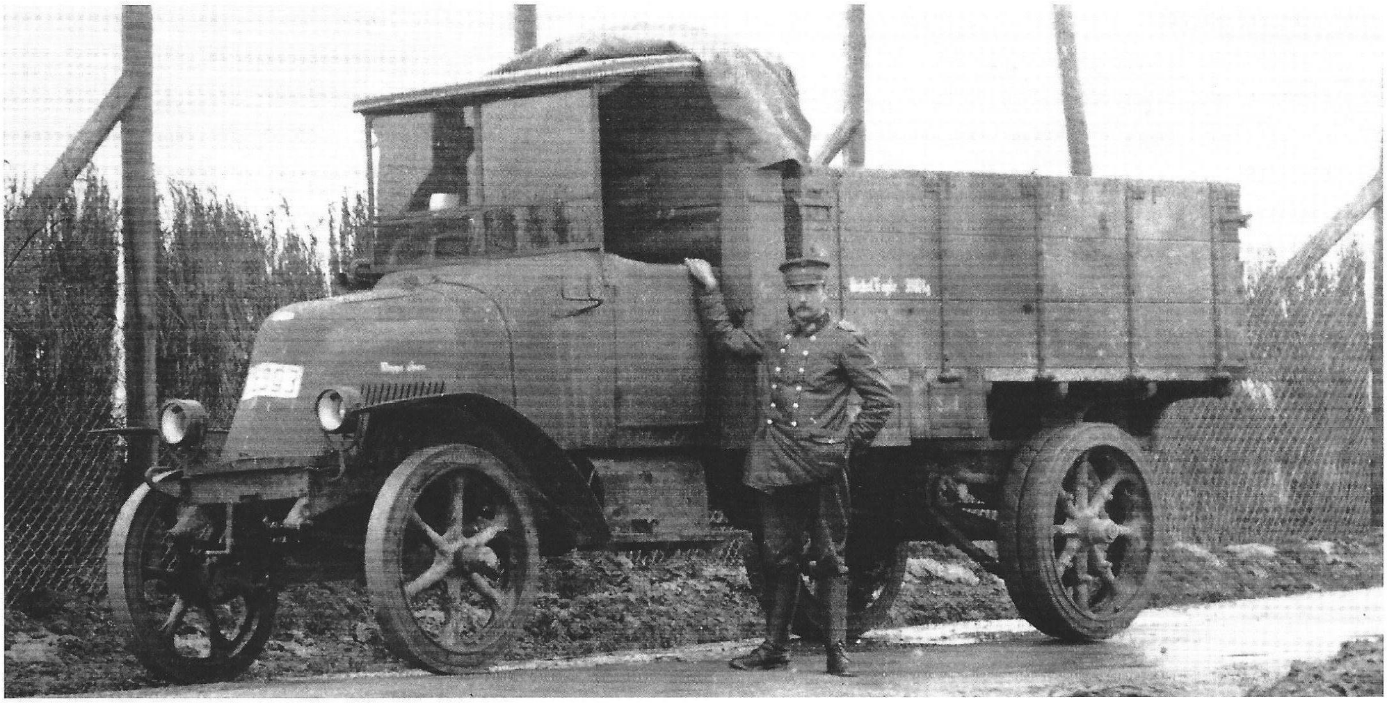
03.16 Komnick / Komnick Trucks

Among the most enigmatic truck-makers of the Kaiserzeit was Komnick. Founded in 1907 as Karl Franz Komnick und Söhne GmbH, Automobilfabrik in Elbing in Western Prussia, it was a major manufacturer of machines and passenger cars in the east of the German Empire. After war broke out, Komnick's passenger car production had to be halted and the company joined the war effort by building a *Regel-Dreitonner* standardised army 3-ton truck with cast-steel rims, solid-rubber tyres, closed cab, chain drive and powered by a 4-cylinder engine. In contrast to its passenger cars, army trucks had ventilation louvres in the engine compartment sides.

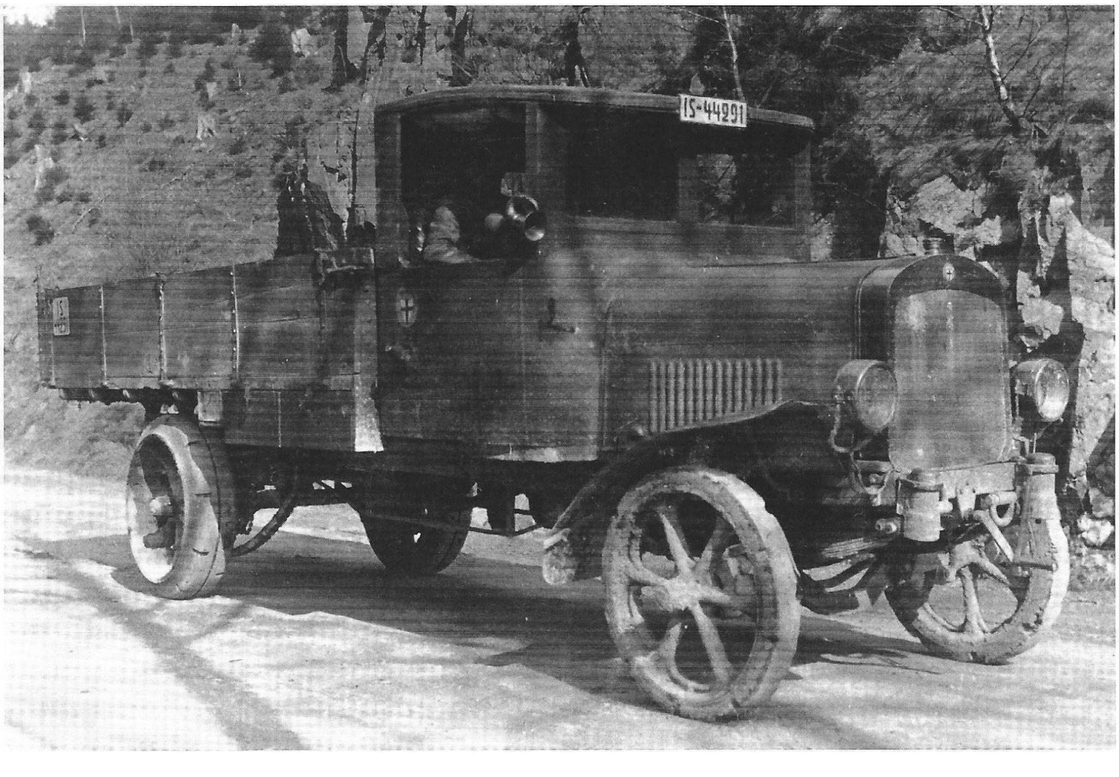
Later in the war, the 3-ton truck was modernised in a second series and the radiator now fitted in front of the engine, rather than behind. This approach led to a full redesign of the vehicle's front towards a more standard appearance.

In later war years, a 5-ton *Heereswagen* was added to the range, yet with the same engine as the 3-ton version and so it was underpowered. The 5-ton truck design was based on the design of the 3-ton truck of the second series, and it was also used in combination with a trailer.

No more details about the Komnick *Heereswagen* have survived, nor have any production figures. Based on the rarity of Komnick truck photos from the war, production numbers certainly were not high.



Here is the first series version of the 3-ton Komnick *Heereswagen* truck. The design of the engine compartment with a round end was unique to German truck-makers, and may have been inspired by French Renault trucks.
Credit: Steve St. Schmidt Collection via Henry Hoppe



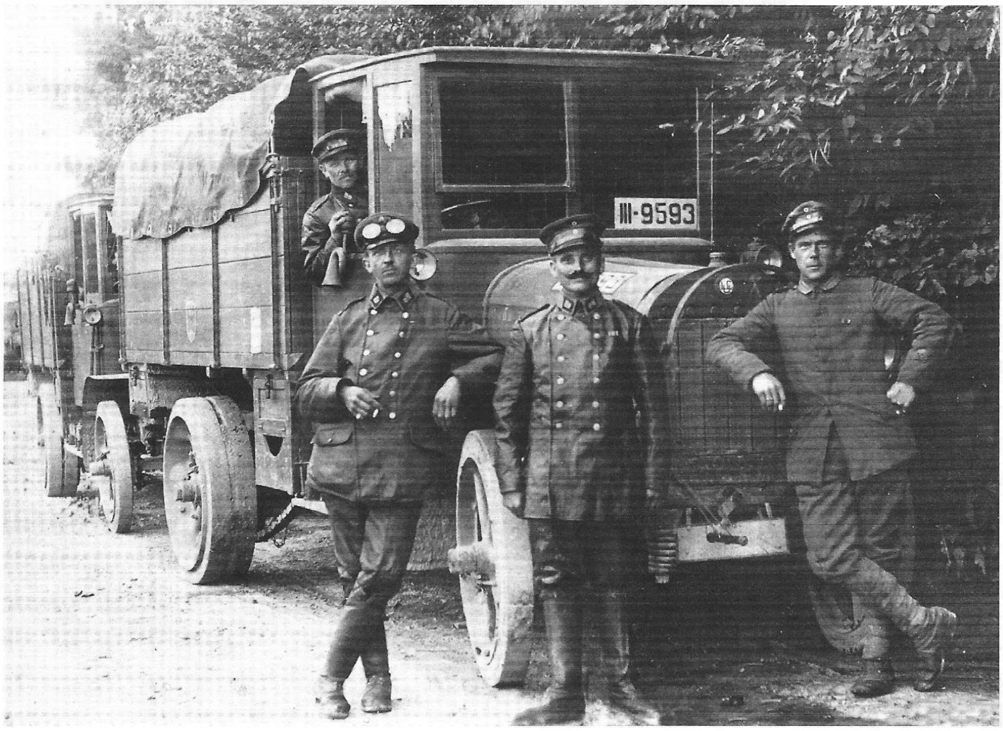
In later war years, the 3-ton *Heereswagen* was completely redesigned and produced in a second series that received a radiator in front of the engine. The 5-ton version was built to the same outlines. The photo shows the revised wartime design in a truck that survived into the early post-war period but minus its brush guard.
Credit: Jochen Vollert Collection

03.17 𝔏𝔘ℭ / LUC Trucks

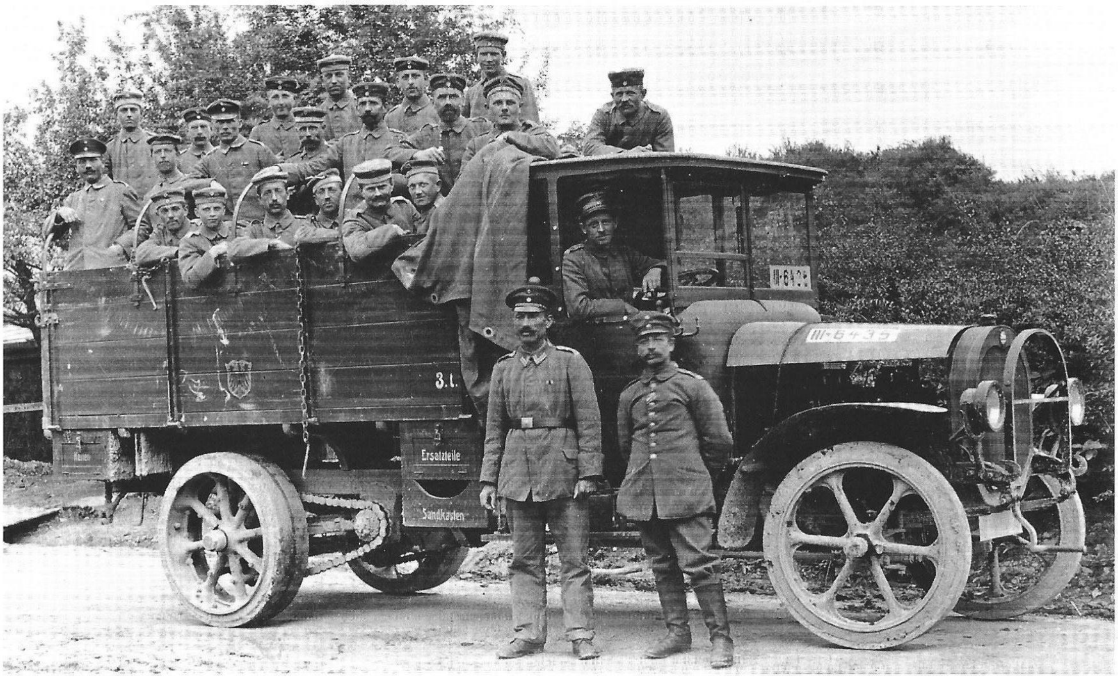
In 1901, Kraftfahrzeug AG (KAG) took over general distribution for Benz motor vehicles in Berlin-Charlottenburg. In 1906 it built one of the most modern automobile repair plants, where in 1911-14, Ludwig Loeb u. Co. (LUC) Automobilfabrik GmbH started to build its own passenger cars. In 1914 it was renamed as Loeb-Werke AG, Personen- und Lastwagen-Fabriken (Automobilfabrik der KAG). In the pre-war era, LUC built only three truck models, all in the same payload range:

°	3.5-ton	powered by a 4-cylinder 36hp 3052cc engine	(built from 1910-11)
°	3.5-ton	powered by a 4-cylinder 35hp 4109cc engine	(built from 1912-13)
°	3.5-ton	powered by a 4-cylinder 40hp 5509cc engine	(built from 1914-18)

During the war, production of the last 3.5-ton model with a 40hp engine continued in the form of *Heereswagen* for the army. No production figures have survived, yet LUC trucks were a truly scarce sight in Imperial German Army service.



A 3.5-ton LUC *Heereswagen*; note the distinctive LUC logo on the upper end of the radiator. All other outlines of the design, including the double rear wheels, closed cab with a windscreen (and even featuring side window panes), a radiator with brush guard, and even the coil springs supporting the leaf spring suspension, underline the *Heereslastwagen / Regel-Dreitonner* approach. Note the *III Armee* licence plate. Credit: Jochen Vollert Collection



Although very difficult to spot, this truck features a LUC logo on a completely revised radiator design. All other design features point towards a *Heeresmodell*; note also the 3-ton payload rating on the side of the cargo bay with equally high side panels as in the photo above. Absent are the additional coil springs and the side window of the cab. This particular vehicle is also in 3rd Army service. Credit: Jochen Vollert Collection

03.18 Magirus / Magirus Trucks

In 1866, C.D. Magirus, Ulmer Feuerlöschgeräte- und Leiternfabrik was founded in Ulm by Conrad Dietrich Magirus to produce specialist fire brigade equipment such as ladders. In 1892, Magirus built the first turntable fire ladder, and from 1903-08 the company added steam engine-powered fire engines to its range. Later followed fire engines with internal combustion engines.
In 1916, Magirus was approached by the army to build trucks for military purposes as well. The result was the

° 3 C *Heereslastwagen* 4-ton powered by a 4-cylinder 40hp 6082cc engine (limited production, pre-series only)

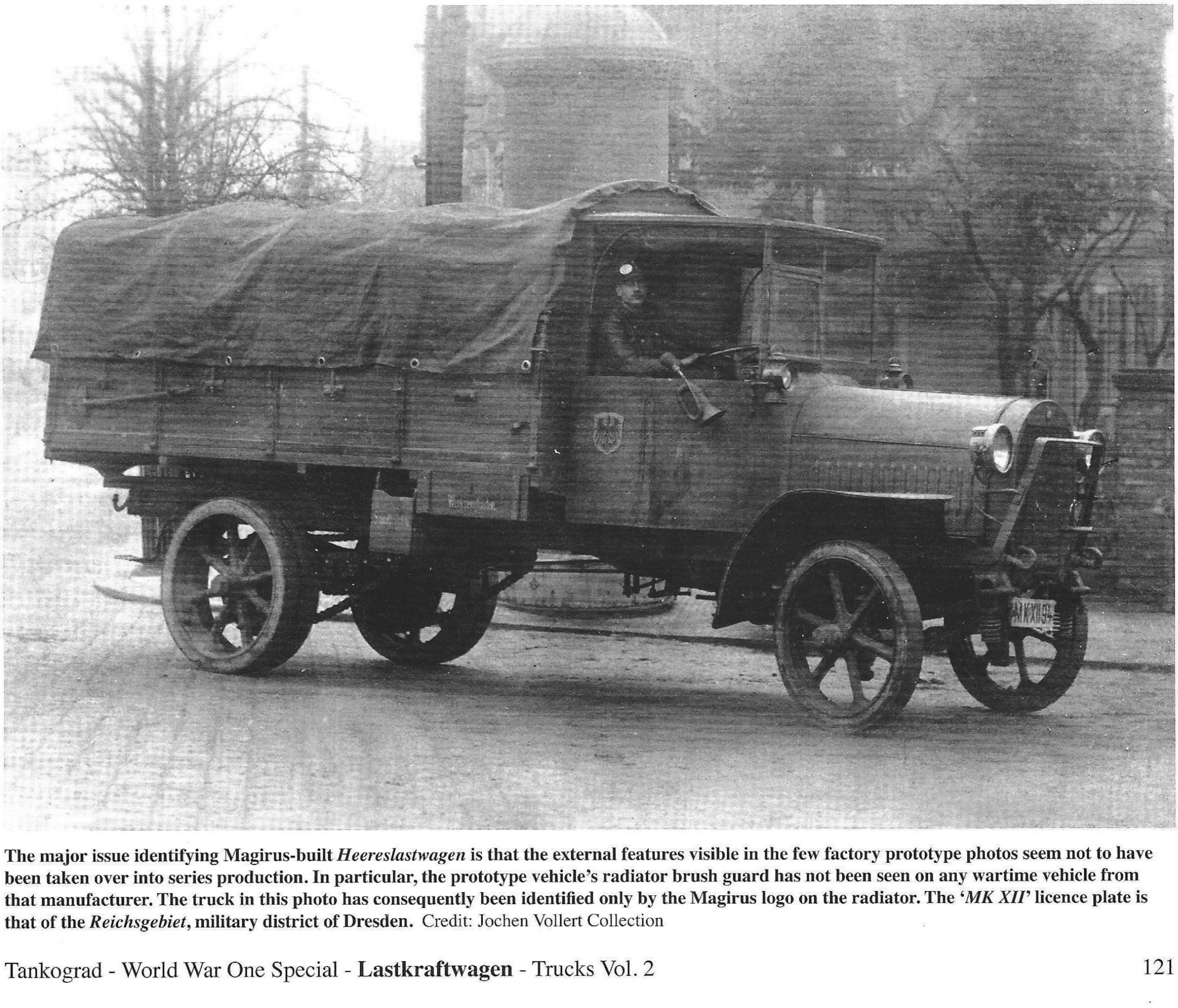
that was built exactly to *Regel-Dreitonner* outlines, yet using a Cardan drive rather than a chain drive (the "*C*" stands for *Cardanantrieb*). Three 3 C trucks were sent to Berlin for trials in late 1916.
The 3 C, however, was not to enter series production as the deteriorating raw material situation called for simplified designs, including full-steel tyres to replace solid-rubber tyres, and this required more powerful engines. As a result, the 3 C was redesigned with a chain drive ("*K*" standing for *Kette*, or chain drive) as the

° 3 K *Heereslastwagen* 4-ton powered by a 4-cylinder 70hp 10306cc engine (390 built from 1916-18)

Another model was also designed, yet again built in limited series only:

° 4 K *Heereslastwagen* 4-ton powered by a 4-cylinder 55hp 8345cc engine (37 built in 1918)

Note that the 3 C, 3 K and 4 K designations are in some sources called 3 C 1, 3 K 1 and 4 K 1.



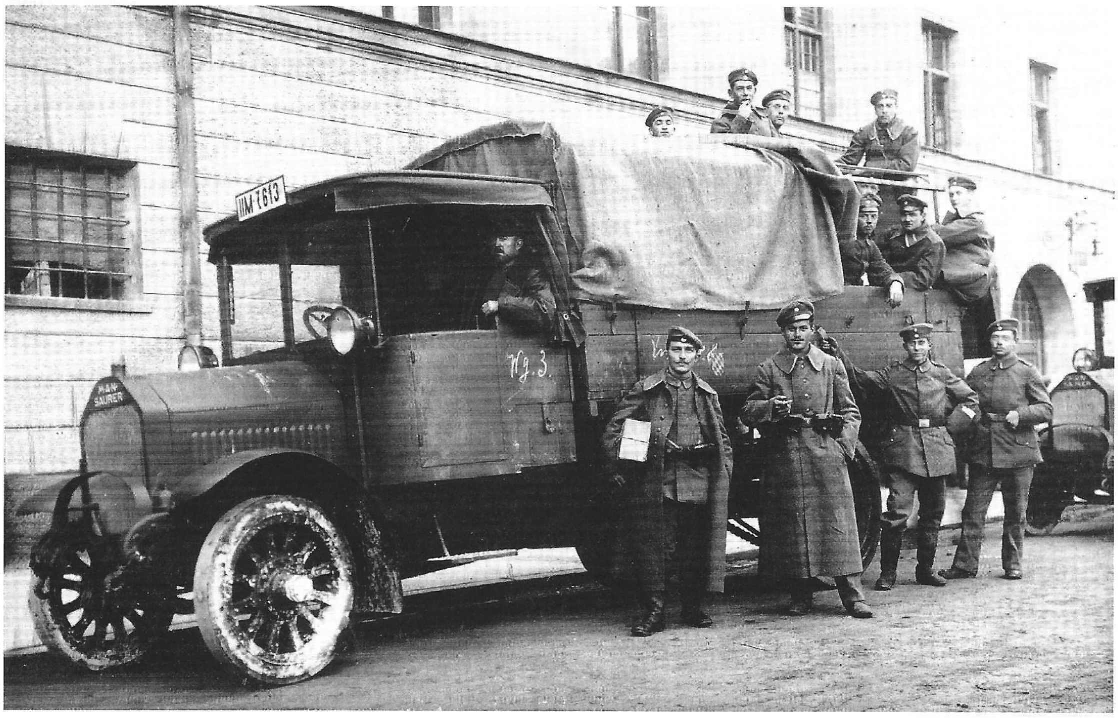
The major issue identifying Magirus-built *Heereslastwagen* is that the external features visible in the few factory prototype photos seem not to have been taken over into series production. In particular, the prototype vehicle's radiator brush guard has not been seen on any wartime vehicle from that manufacturer. The truck in this photo has consequently been identified only by the Magirus logo on the radiator. The '*MK XII*' licence plate is that of the *Reichsgebiet*, military district of Dresden. Credit: Jochen Vollert Collection

03.19 MAN-Saurer / MAN-Saurer Trucks

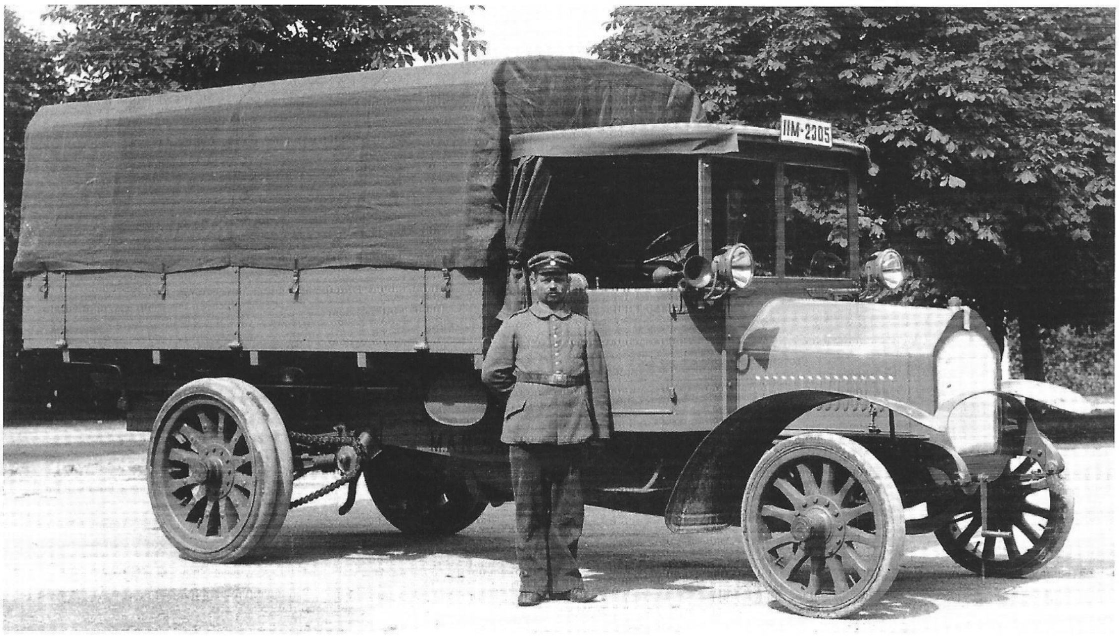
MAN-Saurer-Lastwagen GmbH, founded in 1915 in Nürnberg (Nuremberg), was rooted in a long and colourful history that dated back to 1840. Based on the patriotic initiative of its director general Anton von Rieppel, MAN (Maschinenfabrik-Augsburg-Nürnberg) joined forces with the Swiss company Saurer and launched MAN-Saurer Lastwagen-Werke to build trucks for the army. The designs were based on Adolphe Saurer AG, founded in 1910 as a commercial truck-maker in Lindau. The joint venture allowed production of trucks during the war without the need for new designs. Production started in 1915, with a total of about 1,000 trucks produced up till 1918:

°	2-ton	powered by a 4-cylinder 30hp 5319cc engine
°	3.5-ton	powered by a 4-cylinder 36hp 6079cc engine
°	4-ton	powered by a 4-cylinder 45hp 8138cc engine
°	5-ton	powered by a 4-cylinder 45hp 8138cc engine

MAN and Saurer parted ways in 1917, and in 1918 truck production continued under the trademark Maschinenfabrik-Augsburg-Nürnberg AG. From the Cold War until today, MAN trucks, also known under the recently introduced trademark RMMV, is the primary truck manufacturer of the modern German Army and many other allied nations.



Although built from 1915 only, MAN-Saurer trucks were not designed to military specification, but were based on the pre-war design of the Swiss company Saurer. They were sturdy chain-driven designs, with the 3.5-ton one being the design that covered more than half the production run. Some MAN-Saurer trucks can properly be identified by the manufacturer's lettering on top of the radiator front. This is *Wagen 3*, as visible on the side of the closed cab, which belongs to a Bavarian unit; note the Bavarian crest on the side panel of the cargo bay and the licence plate starting with '*IIM*'.
Credit: Jochen Vollert Collection



Technically, MAN-Saurer trucks are of rather standard make, with the flamboyant radiator guard being the only outstanding identification feature. This is a pristine Bavarian Army truck, as can be identified by a licence plate starting with '*IIM*'. The radiator does not feature the usual logo, but a closer look at the frame under the cargo bed shows '*MAN Saurer*' lettering. Note the civilian wheels.
Credit: Jochen Vollert Collection

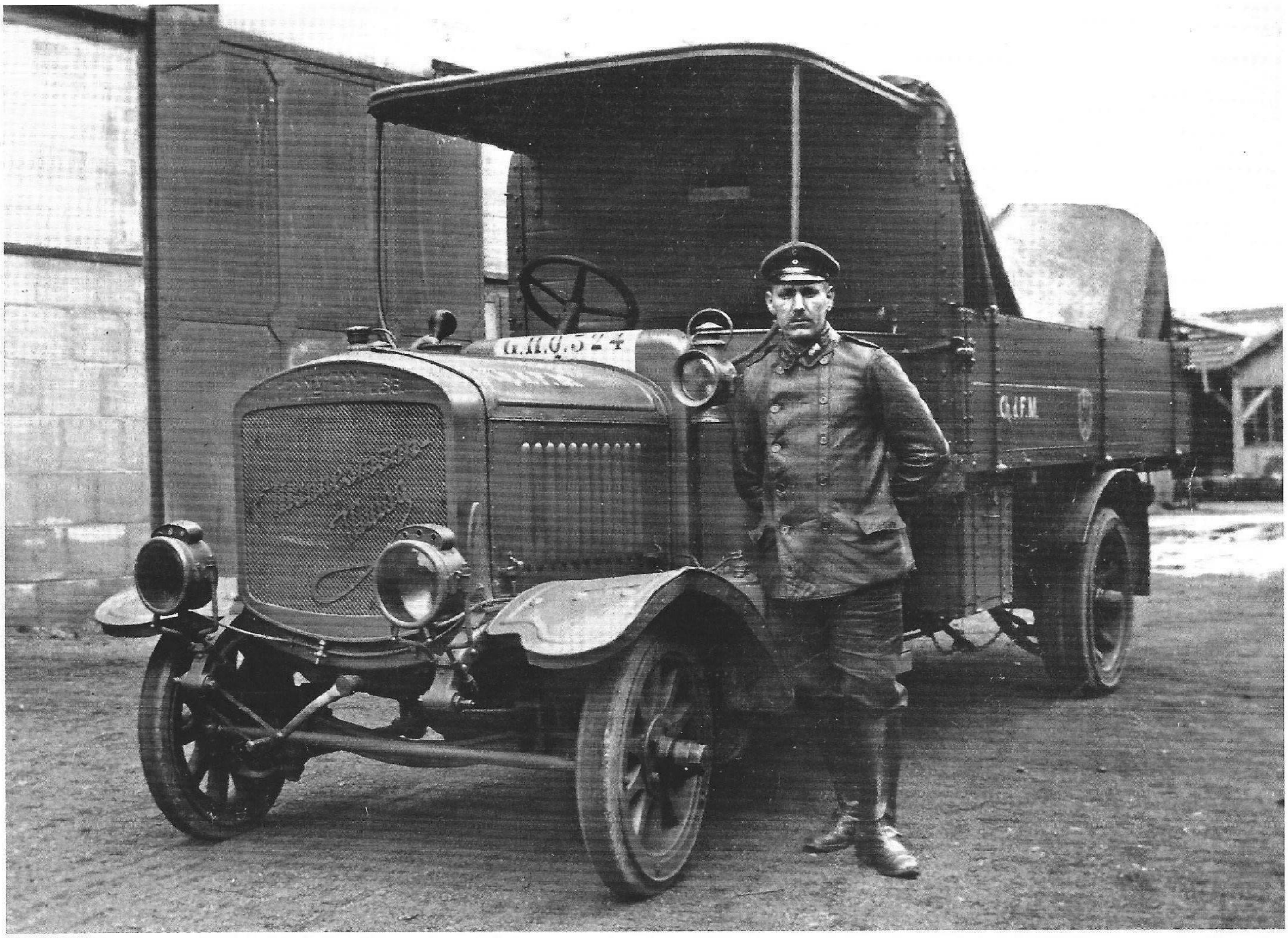
03.20 Mannesmann -Mulag / Mannesmann-Mulag Trucks

Founded in 1900, Fritz Scheibler Motorenfabrik AG had been involved in truck and bus production since 1901, and passenger car production from 1904. In 1909 the company amalgamated with Maschinenbauanstalt Altenessen AG to become Motoren- und Lastwagen AG (Mulag). Before the war, a Mulag truck participated in the *Vergleichsfahrten* army trials.
Between 1902 and 1909, Scheibler had built a number of trucks in the 1.5-ton to 6-ton range, powered by engines with outputs ranging from 12-40hp. Under the Mulag label, the range was taken over and expanded in 1911-12 with trucks in the 3-ton to 6-ton payload range, and powered by engines with an output of 42hp to 47hp.
After running into financial difficulties, Mulag amalgamated in 1913 with Mannesmann Automobilwerk KG (which, from 1911, produced passenger cars, trucks and engines) and became Mannesmann-Mulag. The new company Mannesmann-Mulag, based in Aachen, continued to produce the previous Mulag types to a limited degree, before focusing only on two types, the Mulag 3.5- to 4-ton truck and the Mulag 5-ton truck almost exclusively for the military. The two standardised designs became the:

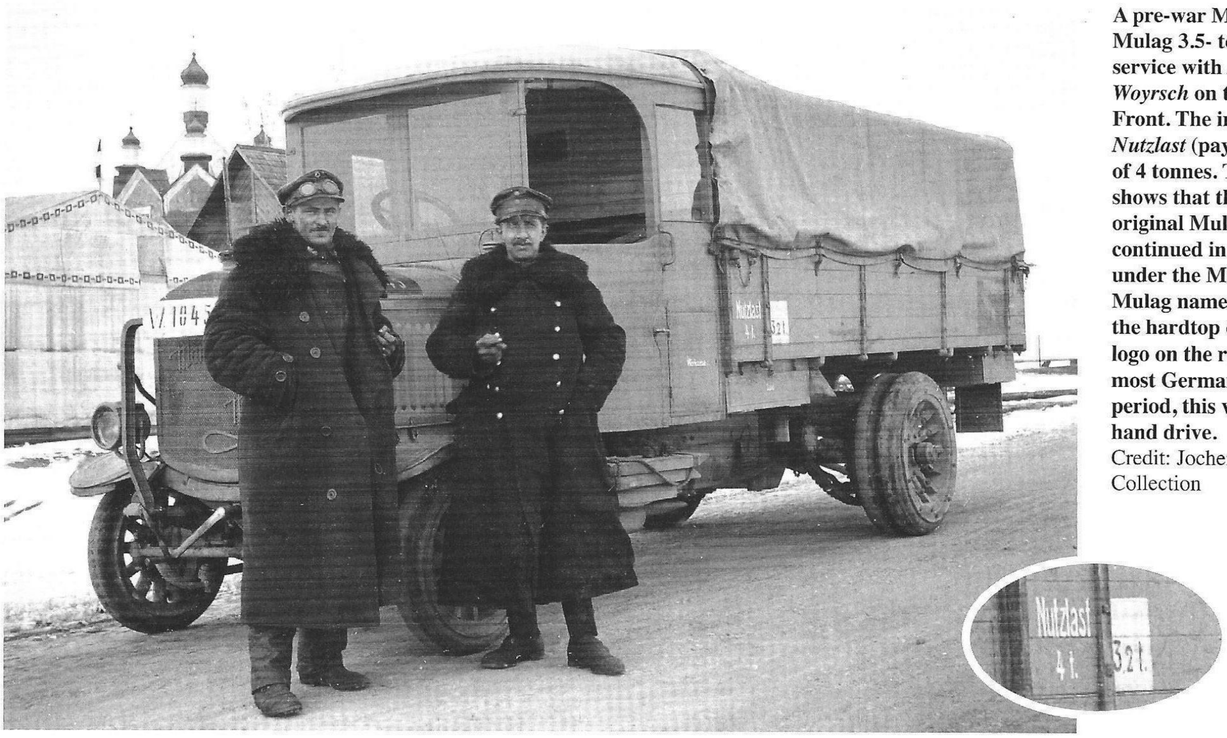
°	3.5- to 4 ton	powered by a 4-cylinder 42hp 6868cc engine	(built from 1913-18, unknown quantity)
°	5-ton	powered by a 4-cylinder 50hp 7959cc engine	(built from 1913-18, unknown quantity)

Of the military models, there were various special roles such as fuel tanker.

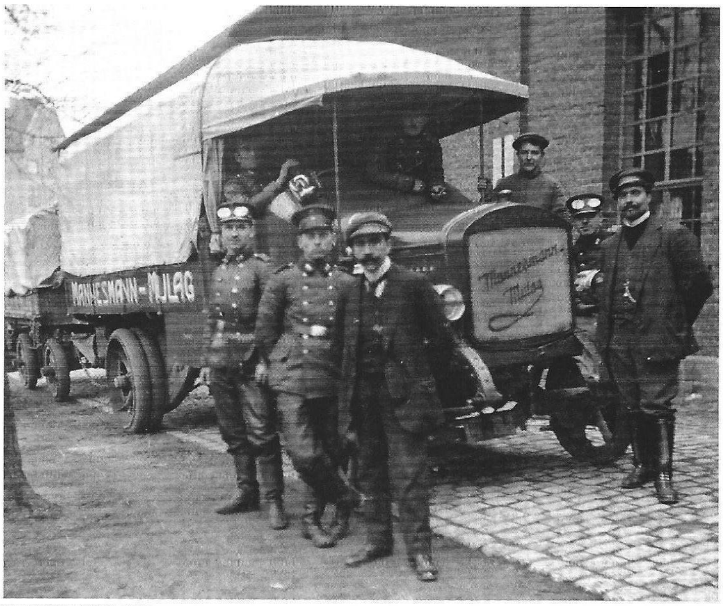
While 1902-12 production of Scheibler/Mulag is estimated at only 300+ vehicles, 1913-18 production of Mannesmann-Mulag is estimated at 1,300+ trucks.



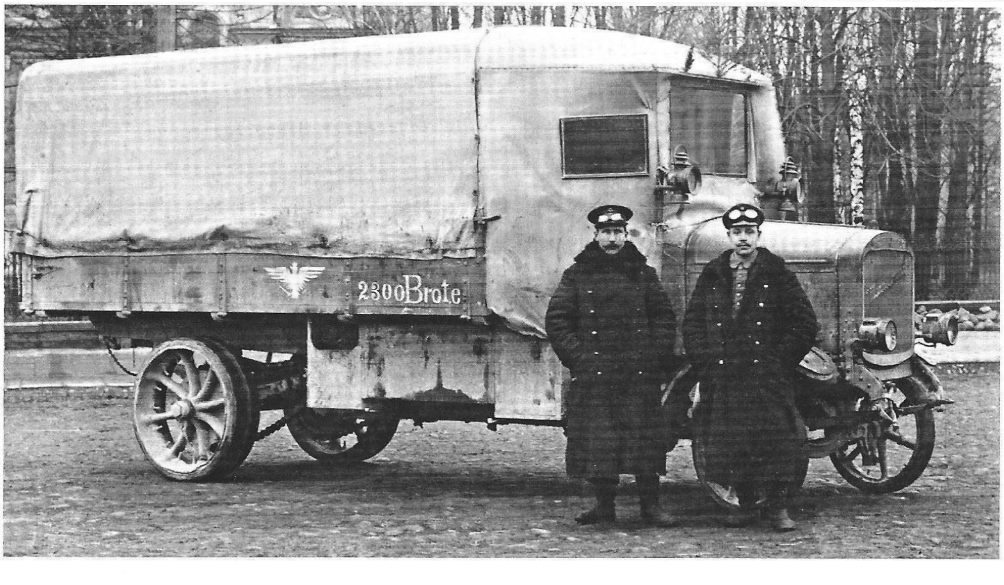
Schreiber/Mulag had built quite a number of commercial trucks in the 1.5-ton to 6-ton range, developed in 1902-07 under the Schreiber name, and in the 3-ton to 6-ton range developed in 1911-12 under the Mulag name. These can all be identified by the flat bonnet. The last Mulag models were a 3.5- to 4-ton model and a 5-ton model of 1913, with the design switching to a bonnet slightly tilted forward. From 1913, Mannesmann-Mulag continued truck production based on designs of the Mulag company. These can be identified by the company's name on the radiator front. This photo shows one of the Mulag trucks of 1911-12 that was continued in production by Mannesmann-Mulag in 1913. The marking *G.H.Q. 324* in front of the cab denotes the *Großes Haupt-Quartier* (Supreme Headquarters) that was located in Charleville-Mezieres in France at the time the photo was taken (April 1916). The subunit marking on the bonnet and cargo bay side '*Ch d FM*' is that of *Chef des Feld-Munitionswesens* (commander-in-chief of field army ammunition supply). Credit: Jochen Vollert Collection



A pre-war Mannesmann-Mulag 3.5- to 4-ton truck in service with *Armee-Abteilung Woyrsch* on the Eastern Front. The inset shows the *Nutzlast* (payload) marking of 4 tonnes. The flat bonnet shows that this is one of the original Mulag truck designs continued in production under the Mannesmann-Mulag name in 1913. Note the hardtop cab and the logo on the radiator. As with most German trucks of that period, this vehicle is right-hand drive.
Credit: Jochen Vollert Collection

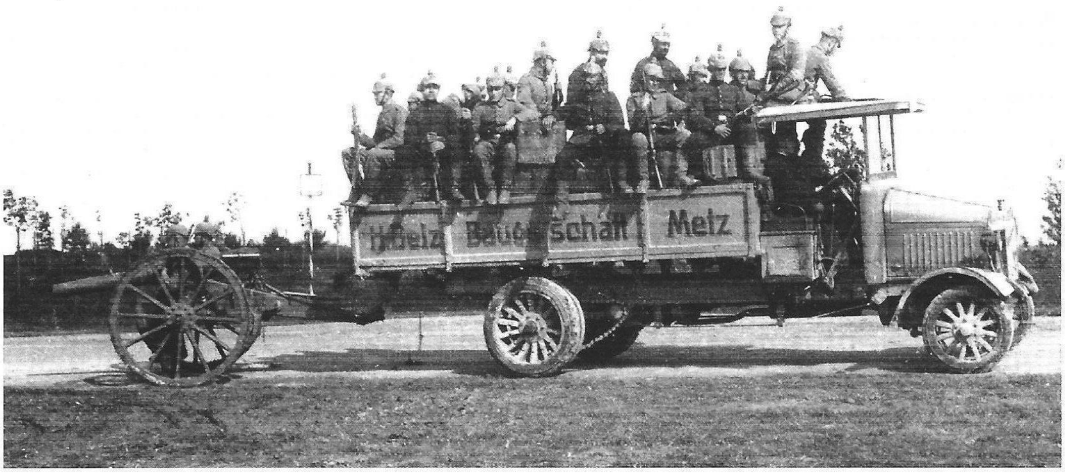


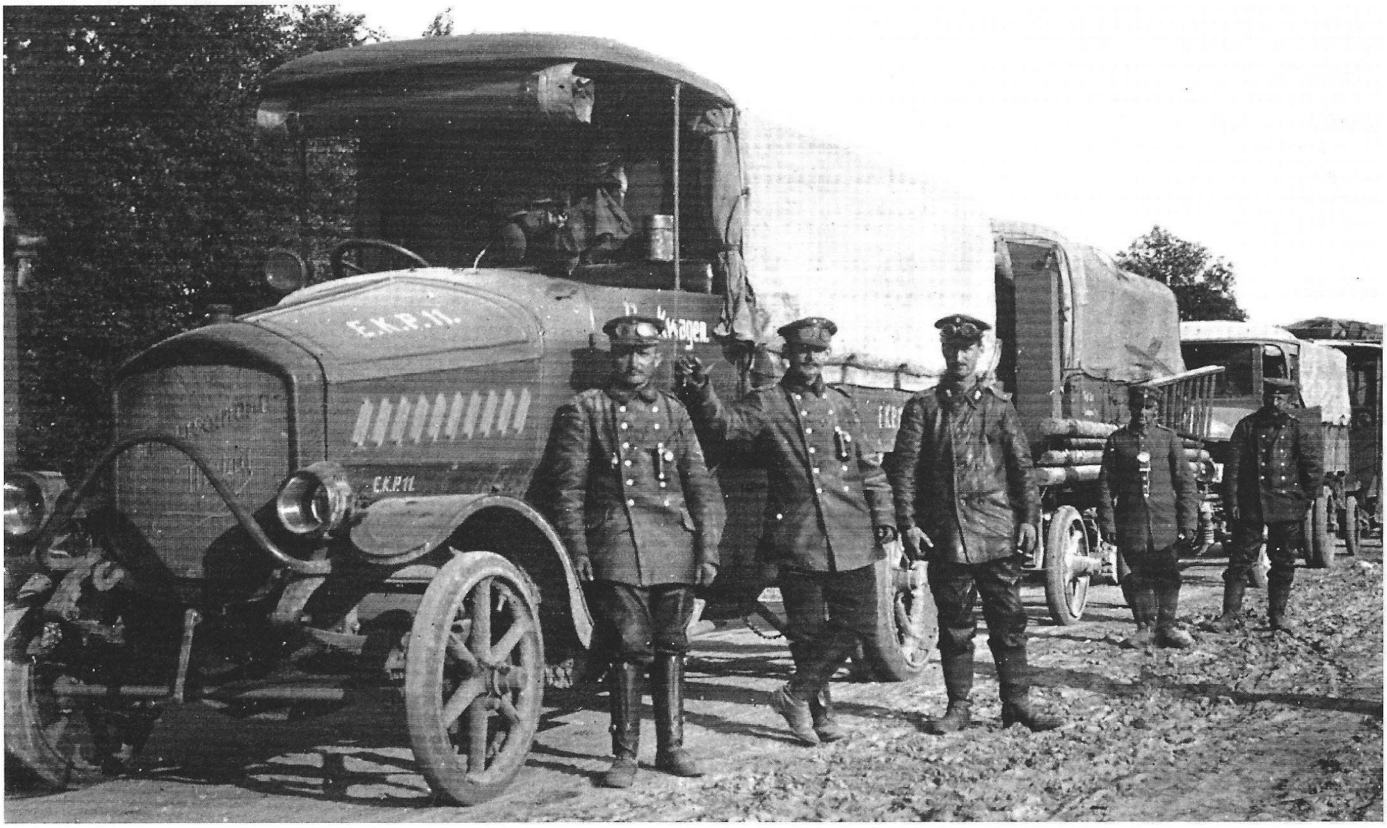
In 1913 a redesigned 3.5-to 4-ton truck was introduced and manufactured under the Mannesmann-Mulag label. It featured the same 4-cylinder 42hp engine displacing 6868cc. When compared with previous designs of the same maker, the new bonnet was now no longer flat, but was slightly tilted forward. The truck in the photo was pictured at the Mannesmann-Mulag factory (note the lettering on the cargo bay side), presumably in 1914, as the truck still has a folding soft-top rather than a wartime hardtop cab. The manufacturer's name denotes a technical familiarisation course rather than any handover to the army. Credit: Jochen Vollert Collection



From 1914, Mannesmann-Mulag focused on only two types. Both remained in production up till 1918. Unfortunately, there is insufficient data to distinguish the 3.5- to 4-ton and 5-ton versions in photographs, as they purportedly differed only in their engine model and payload rating. This truck is equipped with a full set of foul-weather protection fitted and loaded with "2,300 loaves of bread". The eagle crest is that of the Prussian Railway. The photo is dated January 1915.
Credit: Jochen Vollert Collection

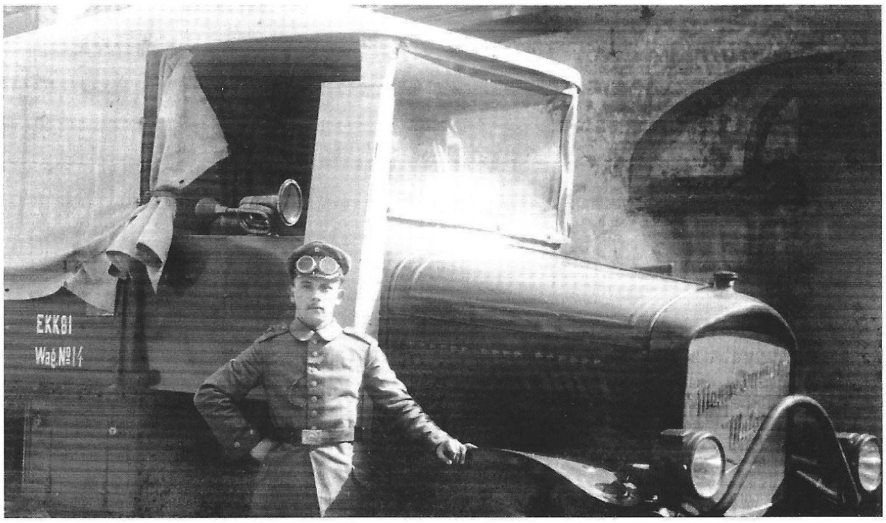
Wartime military truck production of Mannesmann-Mulag was based on pre-war commercial types of 1913 that had been modernised, e.g., with a new bonnet tilting forward but retaining vertical ventilation louvres in the engine compartment sides (visible here). The pictured example therefore started its military career as a commercial vehicle in 1913 (note also the lettering of a construction company) that was then impressed into army service. Note the absent radiator brush guards, a typical feature of commercial trucks of that era.
Credit: Jochen Vollert Collection

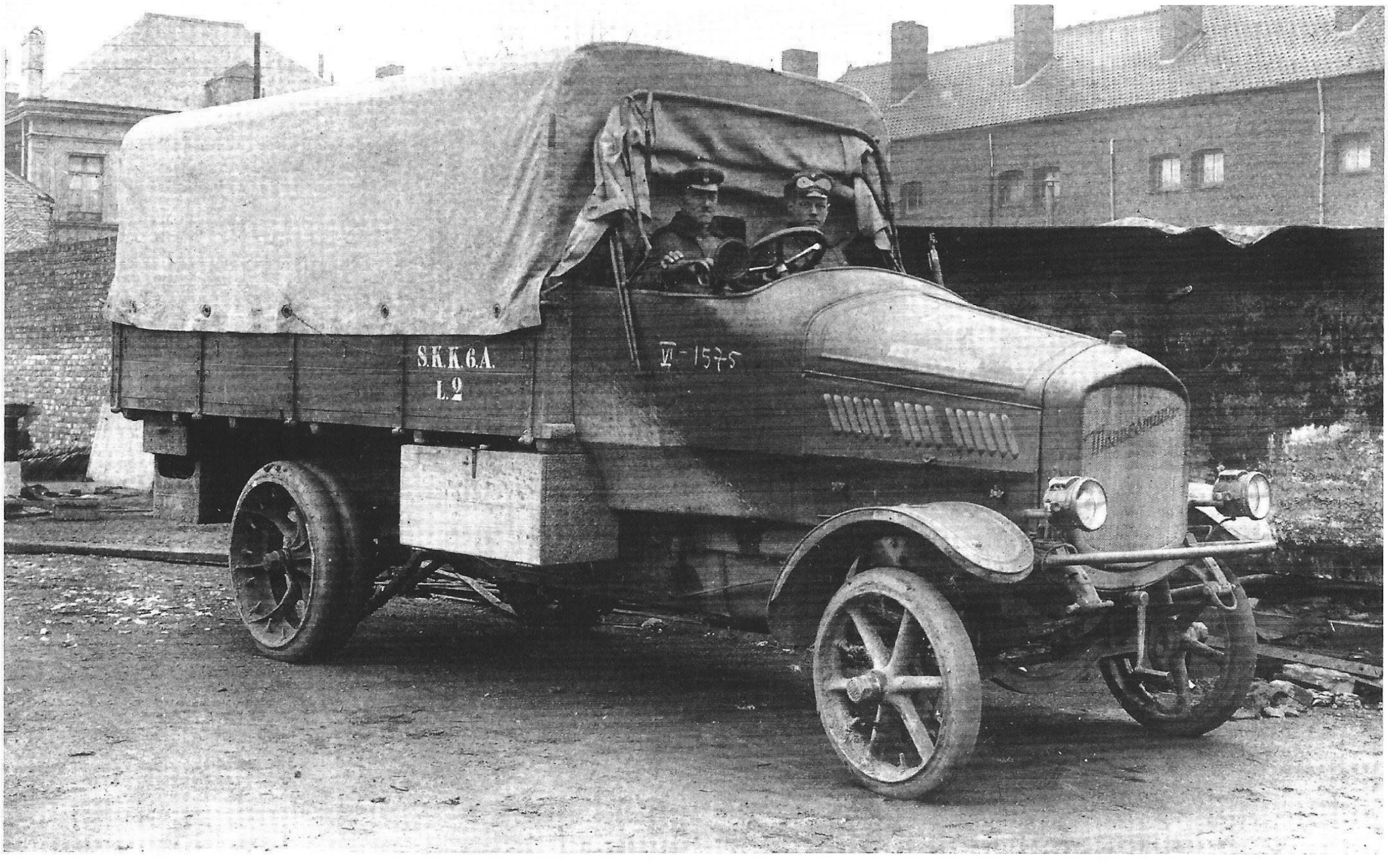




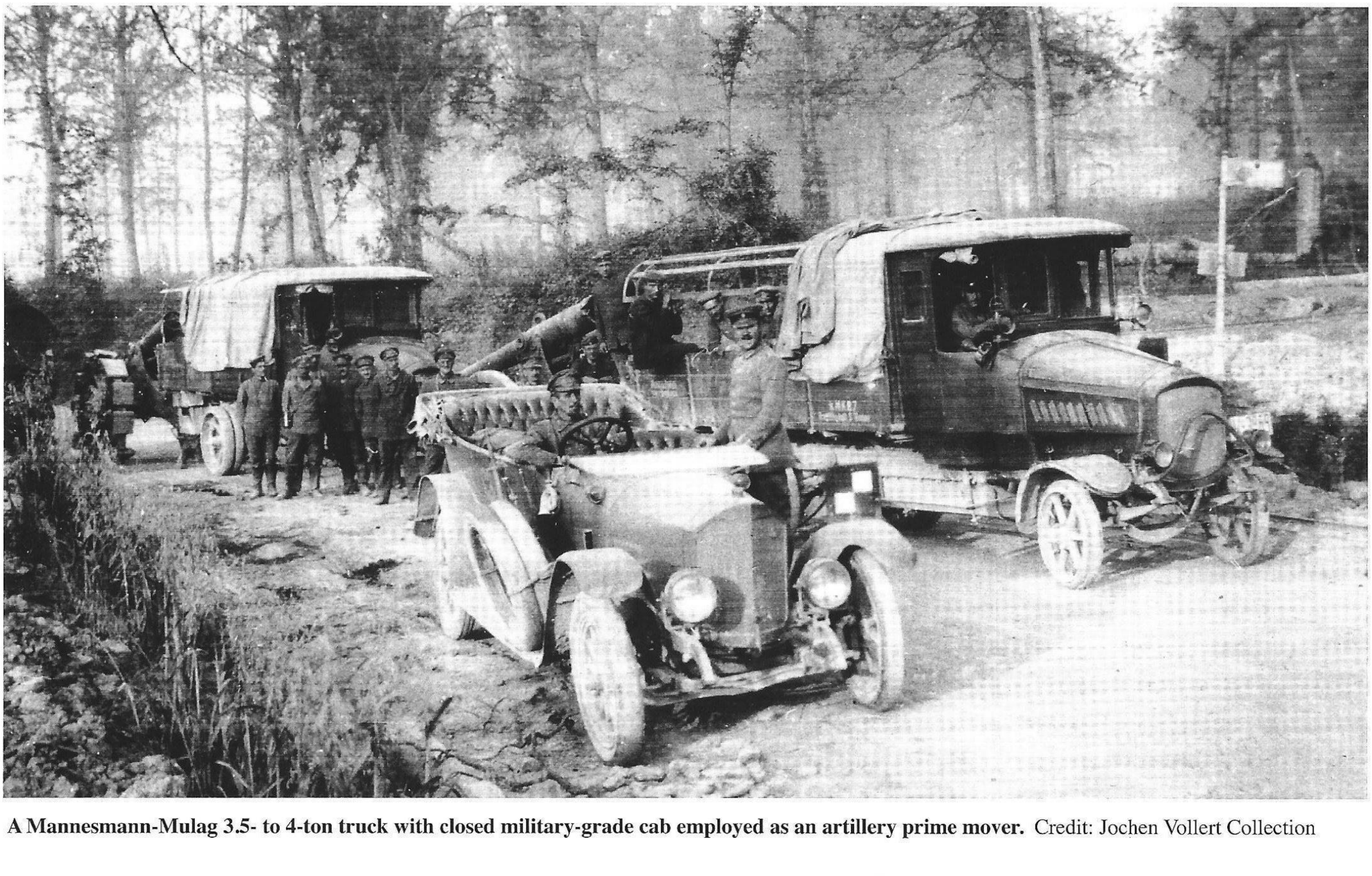
This photo shows the Mannesmann-Mulag 3.5-ton wartime-model truck in the *Armeelastzug* role with a 2-ton trailer. Unfortunately, there is insufficient data to distinguish the 3.5-ton from the 5-ton versions in photographs, as they purportedly differed only in the engine model and payload rating. The location is given as Russia. The unit is *Etappen-Kraftwagen-Park 11*.
Credit: Jochen Vollert Collection

A very intersting detail is visible on this photo of *Wagen Nummer 14* of *Etappen-Kraftwagen-Kolonne 81*: A windscreen made of the early transparent plastic material celluloid rather than glass. The whole windscreen is flexible and can be rolled up as can be seen on the truck in the photo above.
Credit: Jochen Vollert Collection

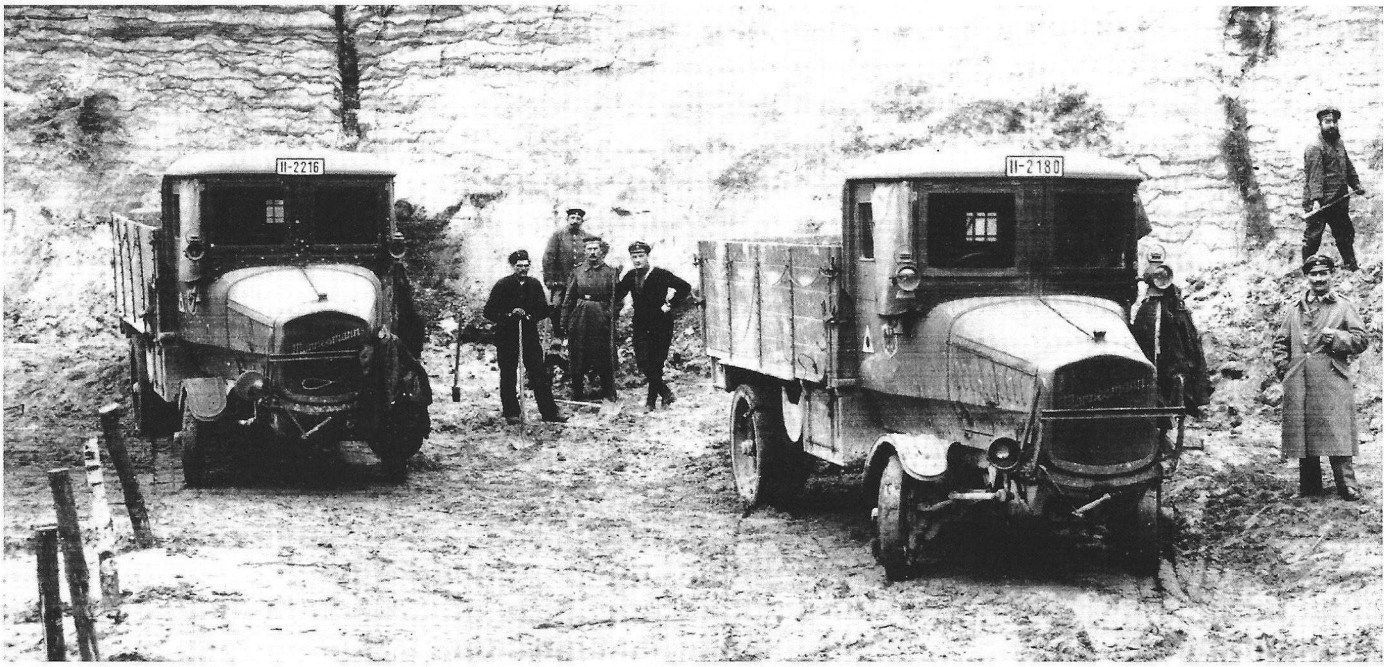




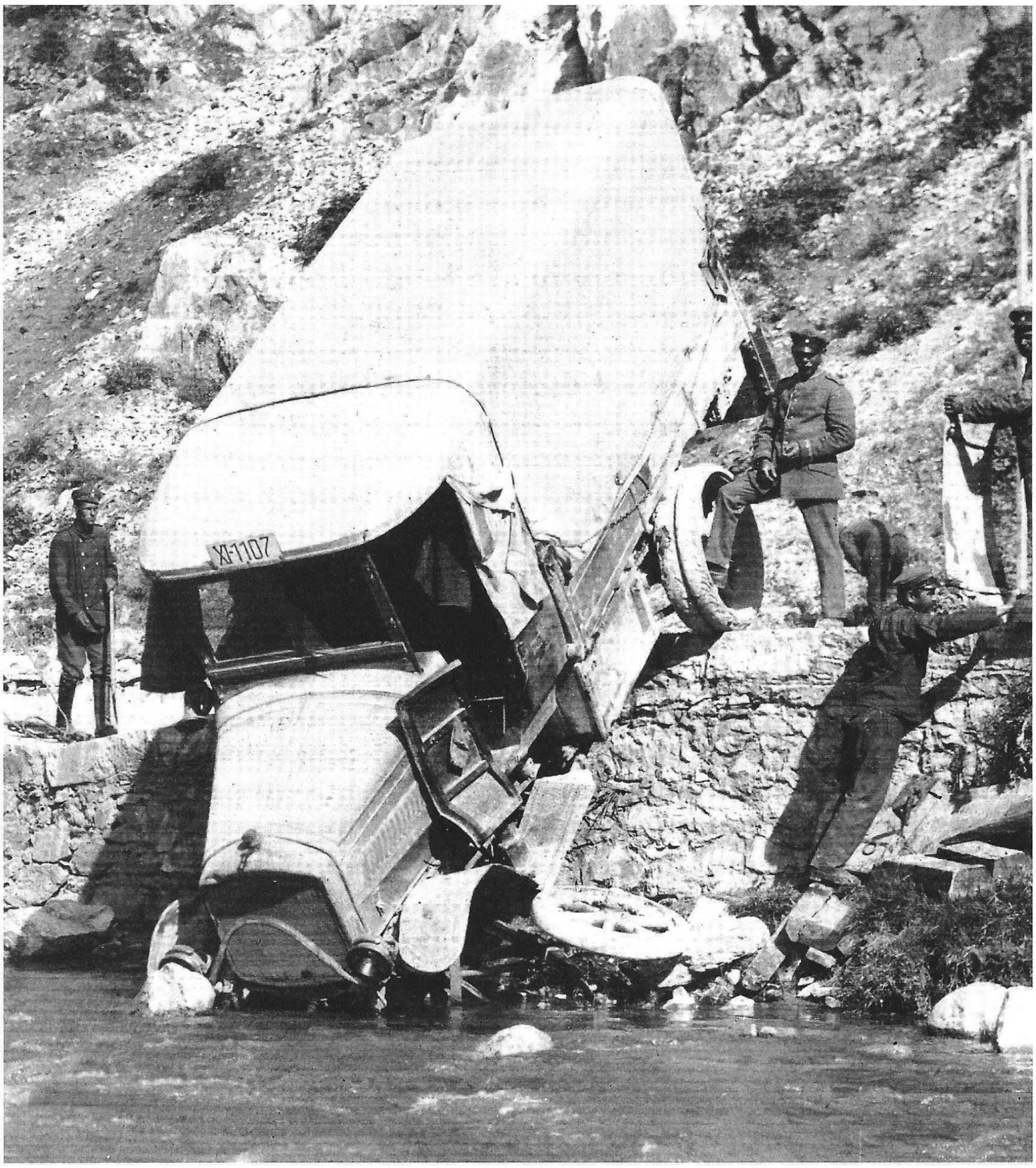
The typical design feature of wartime 3.5- to 4-ton Mannesmann-Mulag trucks can be seen to good extent – the bonnet slightly tilting forward and the angled ventilation louvres in the engine compartment sides. This truck is a classic wartime long-wheelbase cargo version with four sections in the cargo bay sides. Note that, on this example, the 'Mulag' part of the radiator has fallen off, though the hyphen behind 'Mannesmann' is still visible. The military marking '*S.K.K. 6 A. L.2*' has not yet been fully identified, the first part is *Sanitäts-Kraftwagen-Kolonne der 6. Armee*. Interesting is the rare early soft-top cab. Note that the round brush guard has been bent down and the licence plate number is provisionally applied on the driver's door. Credit: Jochen Vollert Collection



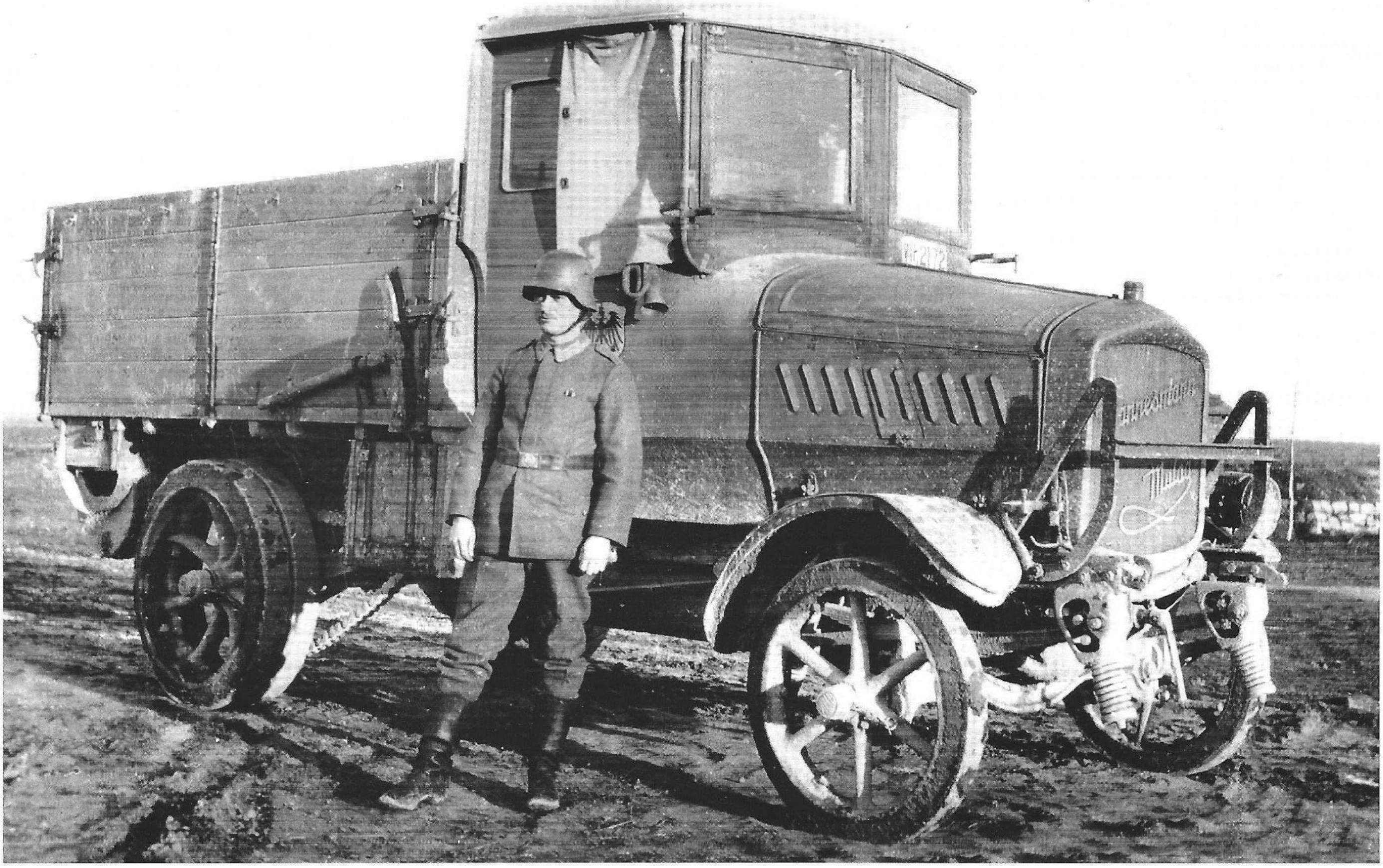
A Mannesmann-Mulag 3.5- to 4-ton truck with closed military-grade cab employed as an artillery prime mover. Credit: Jochen Vollert Collection



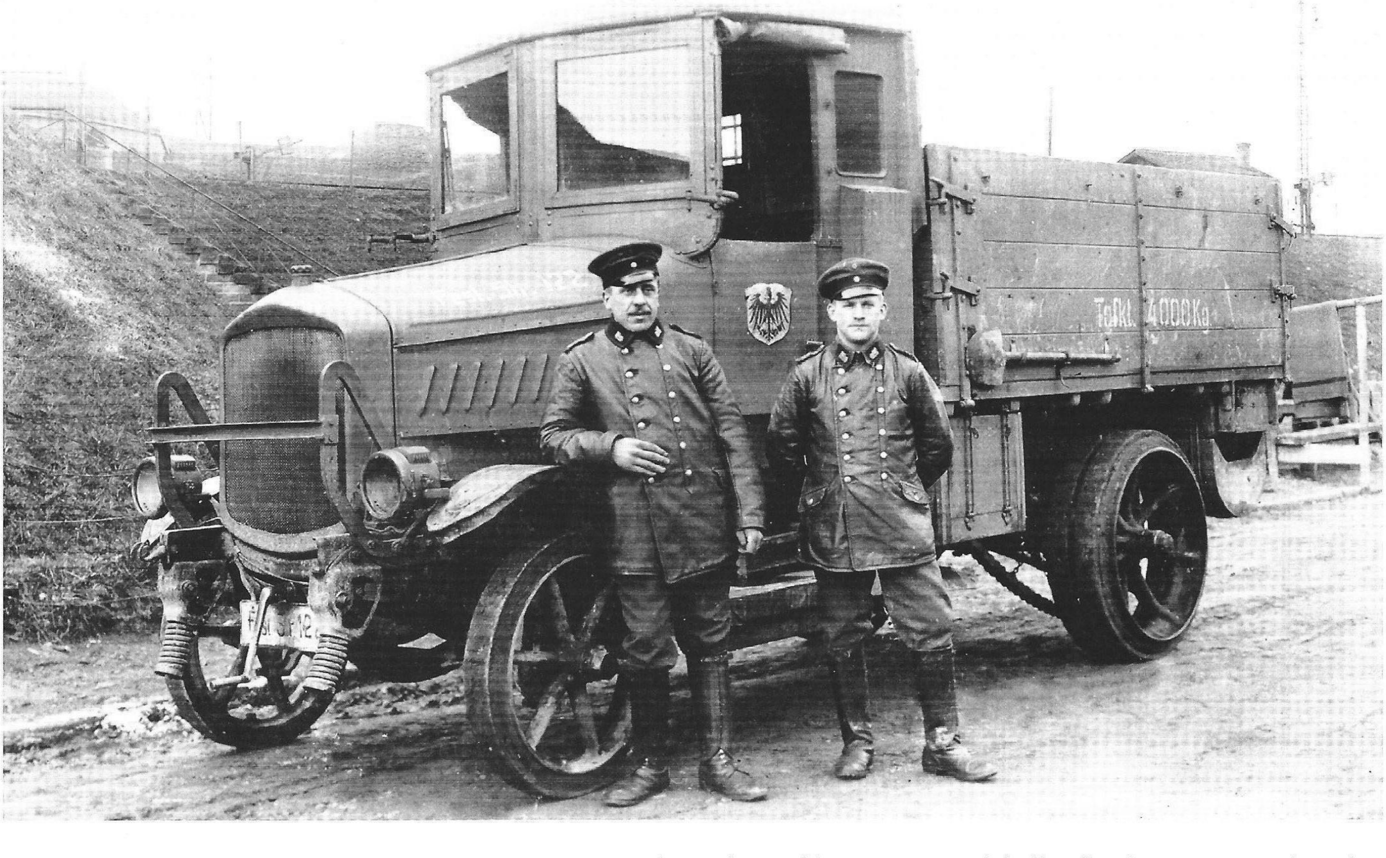
Another radiator guard type on these two Mannesmann-Mulag trucks employed for tough quarry work by the 2nd Army. This photo allows a particularly good view of another design feature of this truck family, the notched layout of the lower part of the body. The photo is dated December 1916.
Credit: Jochen Vollert Collection

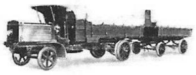


Accidents happened frequently because of bad roads, overstressed vehicle components and tired drivers. This truck of *XI Armee* (11th Army) has slipped off a mountain road in the Balkans and destroyed its front axle in the process. The situation allows a rare look of the top of the wartime hardtop cab roof, the bonnet and the tarpaulin of the cargo bay. An interesting design feature is the number of louvres in the engine compartment side panels: the early version had 16 louvres, the later version only ten louvres.
Credit: Jochen Vollert Collection



These Mannesmann-Mulag 3.5- to 4-ton trucks have a different cargo bay and the sandbox is now mounted behind the rear axle. Note the additional coil springs on the front suspension. These were introduced as the vibrations from the tyres on bad roads became too much for the standard leaf spring suspension. The lettering on the truck in the photo below reveals a *4,000kg* payload. The marking and licence plate '*Fest. Str. 122*' in the photo below means *Festung* (fortification) *Straßburg* (Strasbourg). Note also the Prussian crest marking and the type of radiator guard fitted. The upper photo of a 7th Army vehicle is dated October 1917. Credit: Jochen Vollert Collection





03.21 Nacke / Nacke Trucks

After learning his trade in a steam train factory, engineer Emil H. Nacke founded his own company in the year 1900, Emil Hermann Nacke, Automobil- und Maschinenfabrik, in the city of Coswig. The company began building passenger cars from its year of foundation under the trademark Coswiga. In 1902 it also started producing buses, and in 1903-04 trucks as well as fire engines. Following the interest of the German military in *Subventionswagen* subsidy truck-trailer combinations, Nacke responded to the invitation-to-tender and provided such a 4-ton *Armeelastzug* for army comparative trials, held 09-26 November 1908 and covering 1,215km. In the same year, Nacke was awarded a prestigious licence to officially produce such *Kriegsbrauchbare Lastwagen*. Nacke continued participating in the *Vergleichsfahrten* up till 1912. The biggest boost in truck production came in 1912, when no less than six new types were launched:

1912-16 production

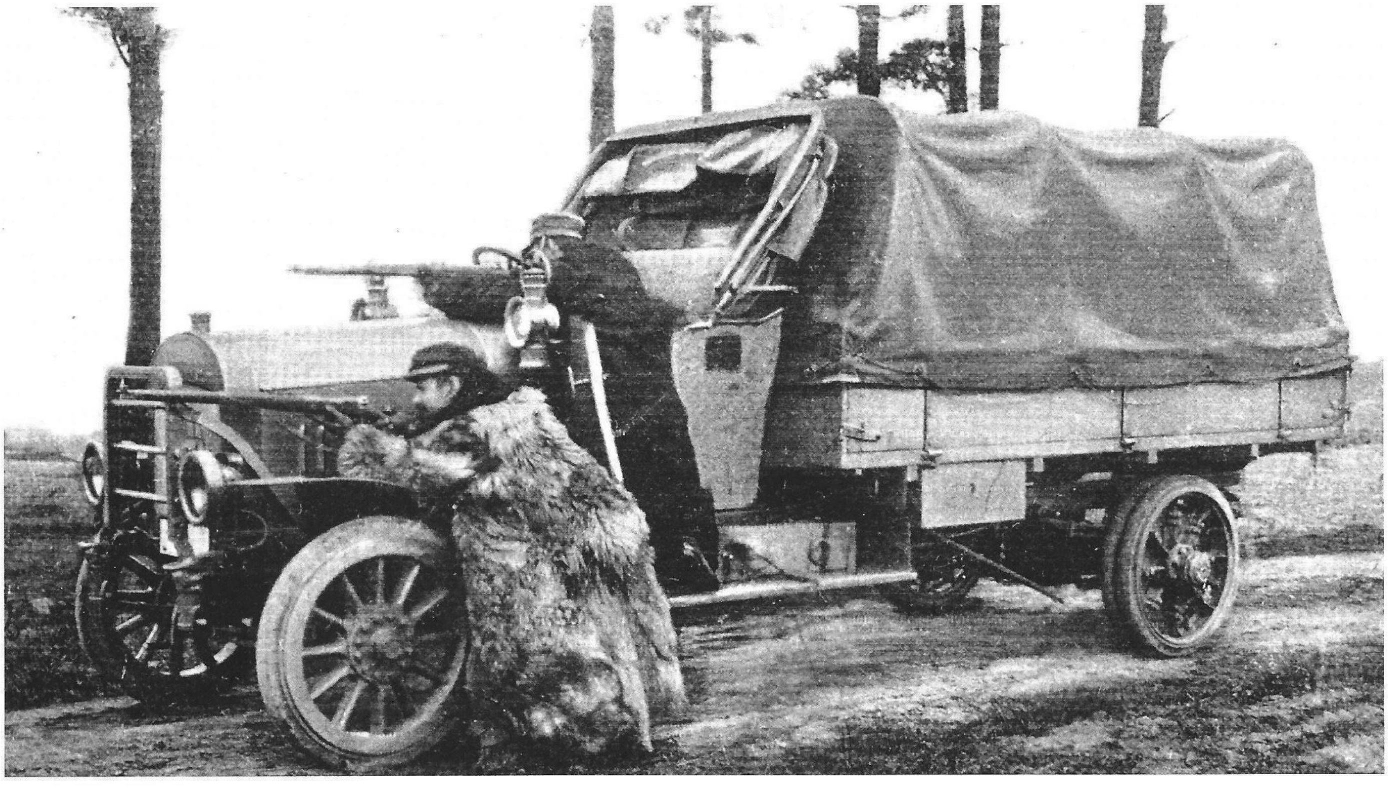
°	Typ 1 1/2	1.5-ton	powered by a 4-cylinder 24hp 2612cc engine	
°	Typ 2 1/2	2.5-ton	powered by a 4-cylinder 32hp 3815cc engine	
°	Typ 3 1/2	3.5-ton	powered by a 4-cylinder 38hp 5193cc engine	(100 built from 1914-16)
°	Typ 4	4-ton	powered by a 4-cylinder 52hp 6782cc engine	
°	Typ 5	5-ton	powered by a 4-cylinder 52hp 6782cc engine	
°	Typ 6	6-ton	powered by a 4-cylinder 60hp 7959cc engine	(limited series, built from 1912-13)

The Typ 1 1/2 to 3 1/2 all had either a worm gear drive or chain drive, while the Typ 4 and 5 had a chain drive only. The Typ 1 1/2 featured pneumatic tyres on the front and solid rubber wheels on the rear axle, whereas all other types had solid rubber wheels all around.

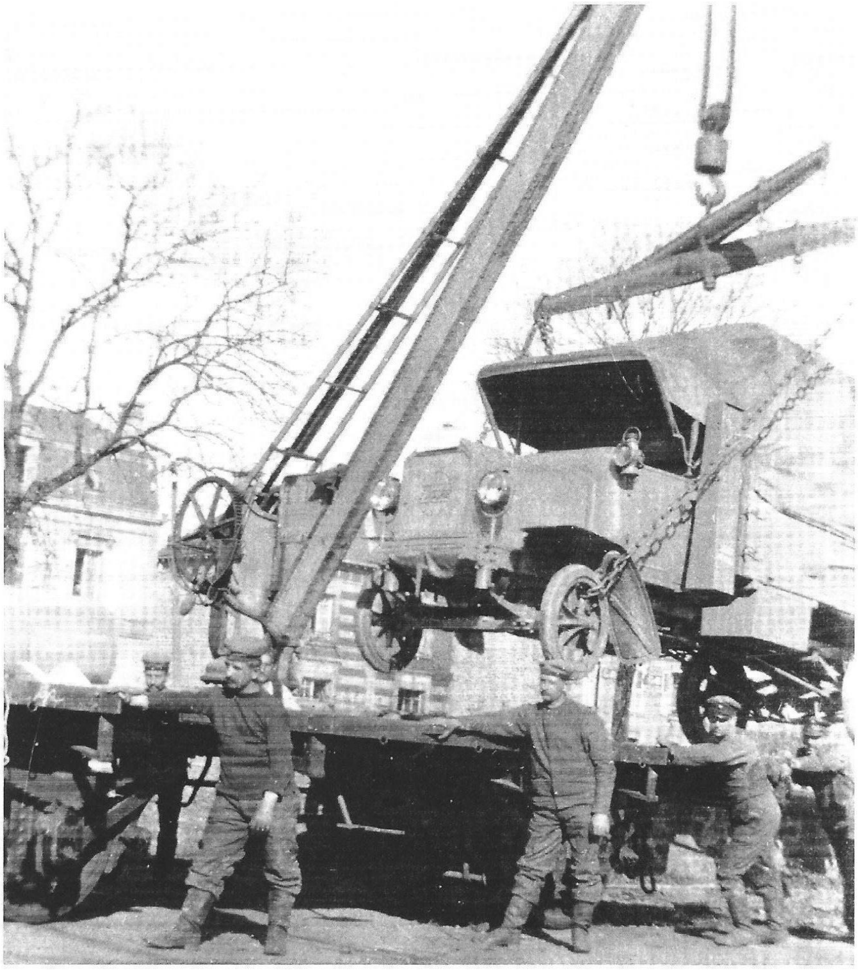
1915-18 production

°	Typ 1 1/2	1.5-ton	powered by a 4-cylinder 18hp 2084cc engine	
°	Typ 2 1/2	2.2-ton	powered by a 4-cylinder 32hp 3815cc engine	
°	Typ 4	3.5-ton	powered by a 4-cylinder 39hp 5193cc engine	(80 built from 1917-18)
°	Typ 5	4.3-ton	powered by a 4-cylinder 52hp 6782cc engine	

During the war, Nacke continued building a *Heereslastwagen* based on its previous 4-ton model, yet down-rated to 3.5 tons with a power output reduced to 39hp to compensate for the bad fuel of the time. Additionally, Nacke fitted pneumatic shock absorbers on the front-axle suspension, a differential lock and replaceable brake pads on the rear axle. Another interesting technical feature was the encapsulated dust-proof chain drive that was a Nacke patent of 1912.

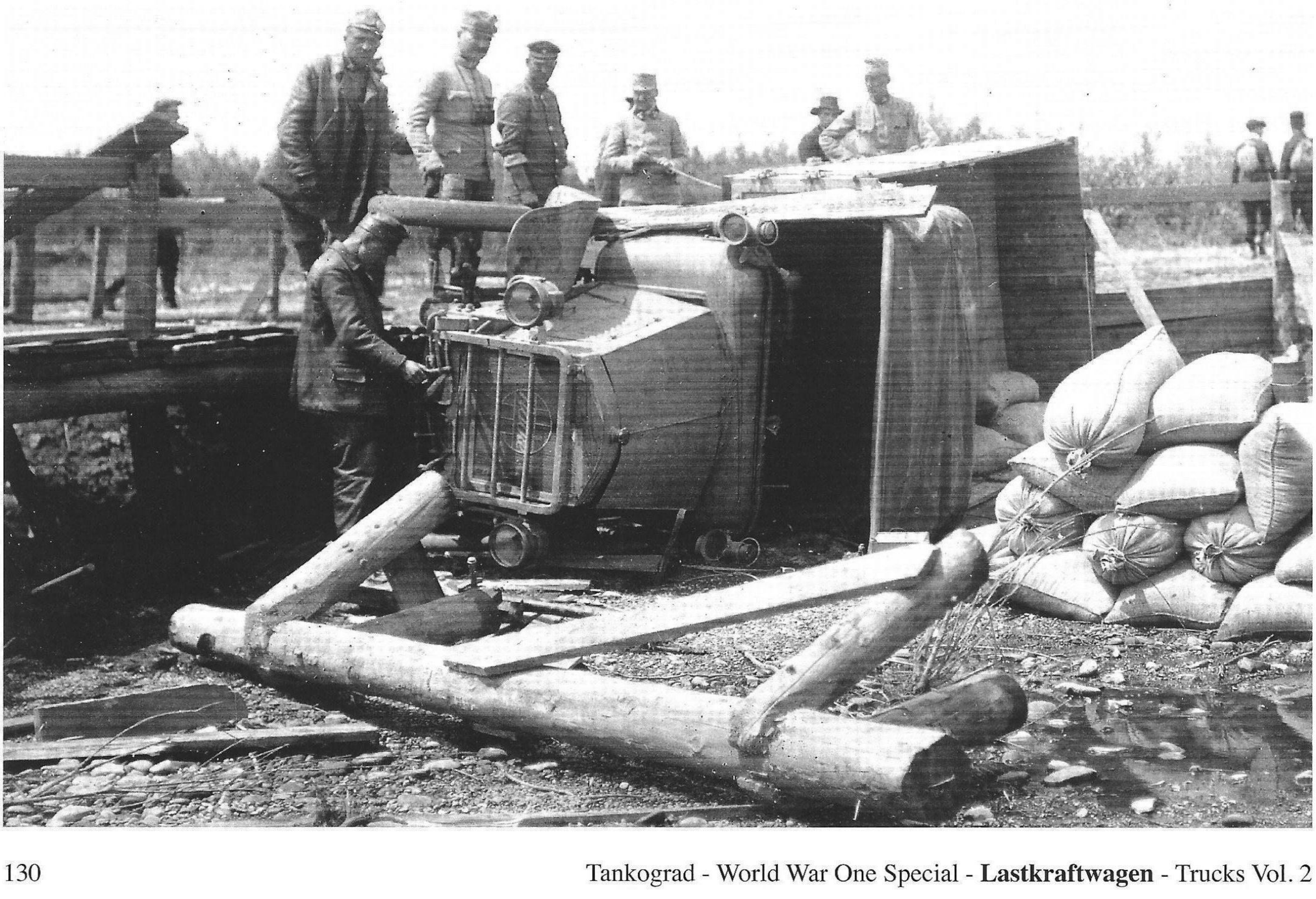


A staged propaganda postcard issued in 1914 to underline the value of Nacke trucks for frontline service. The truck is a *Typ 2 1/2* pre-war model with worm drive, yet partially militarised with a radiator brush guard. Credit: Jochen Vollert Collection

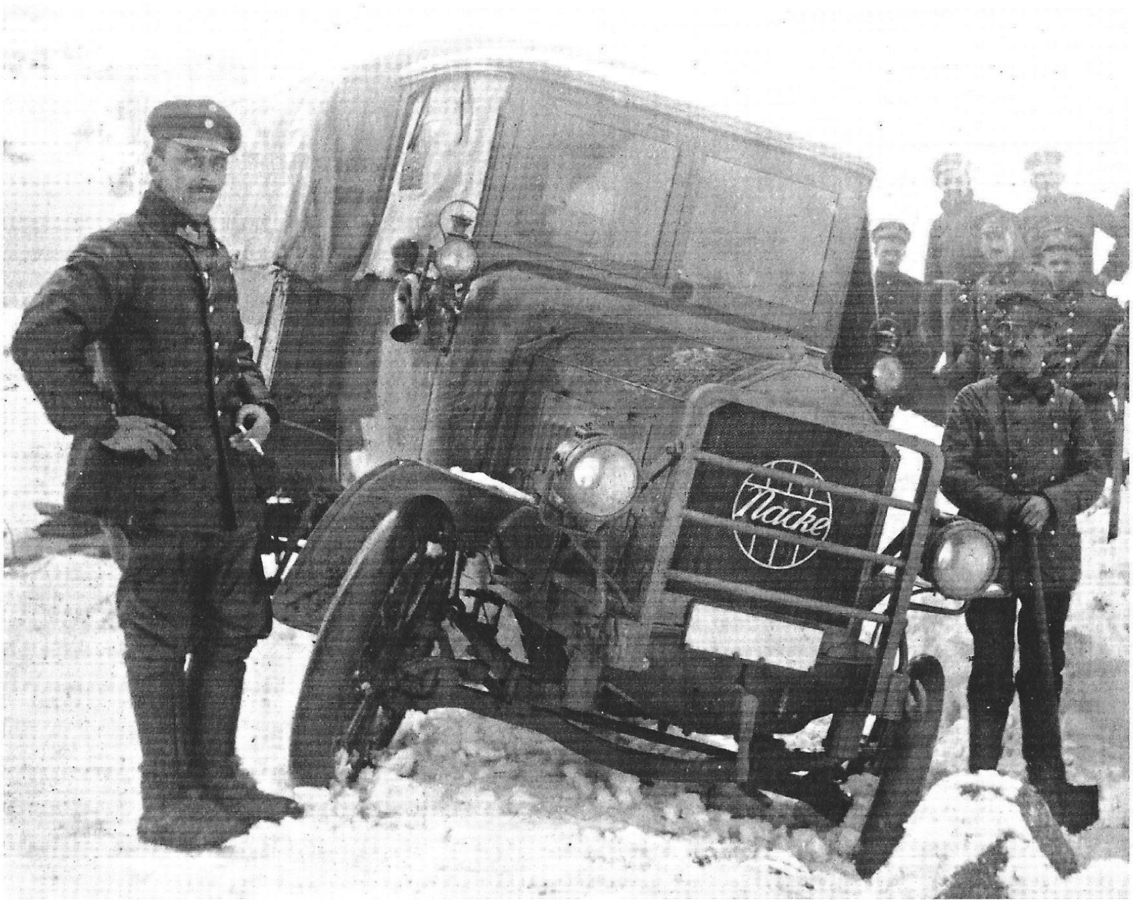


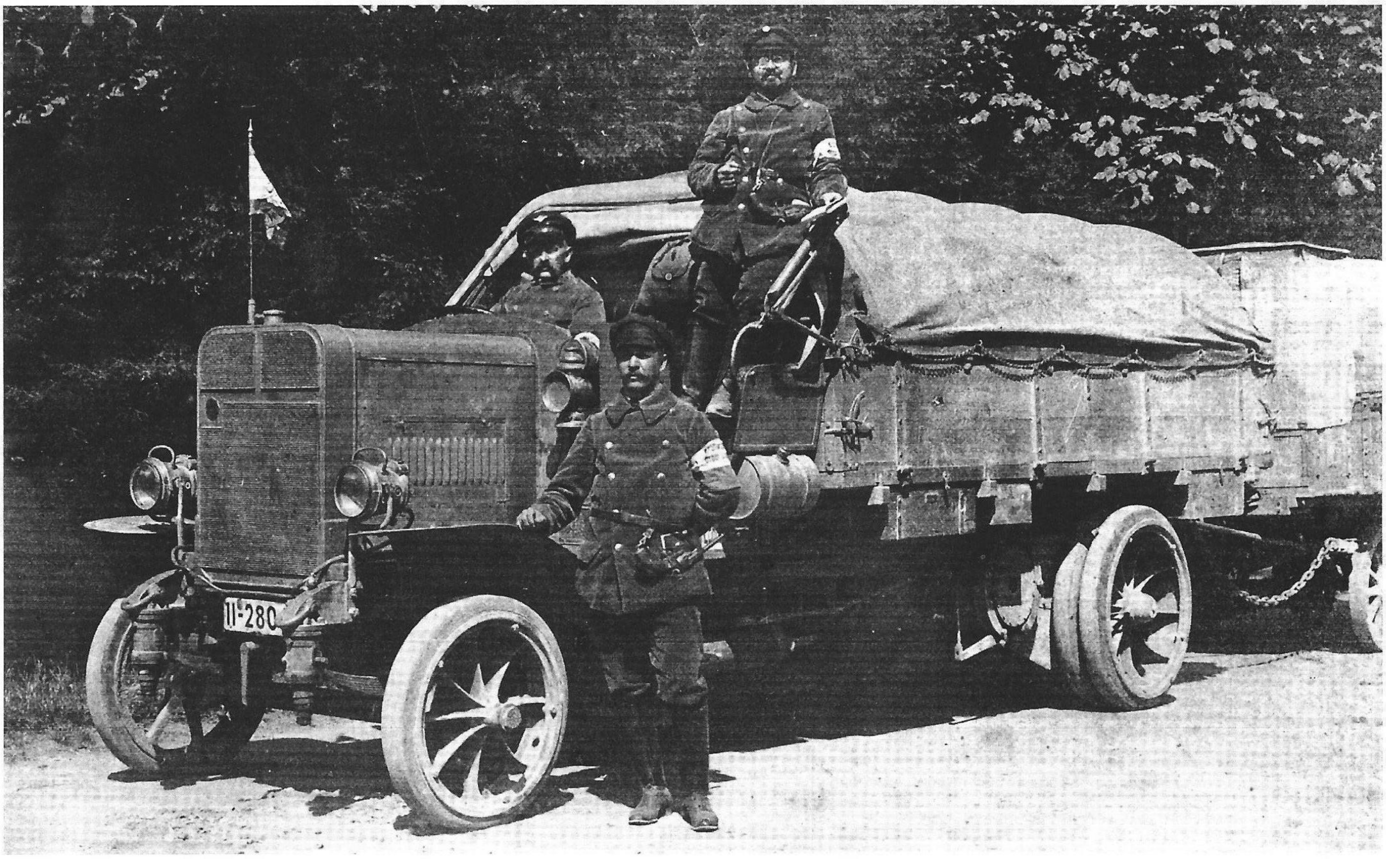
A pre-war Nacke with foldable soft-top is being loaded onto a railroad wagon. Note the Nacke logo on the radiator front. This is presumably a 2.5-ton or 3.5-ton model, based on the absent chain drive on the rear axle. Credit: Jochen Vollert Collection

Production figures for Nacke trucks have only partially survived, yet the make never entered mass production and Nacke trucks remained a very scarce sight in Imperial German Army service. The Austrian soldiers in this photo are inspecting a German Nacke truck of the *Südarmee* with soft-top cab that fell off an improvised engineer road. Note once more the Nacke logo and the massive military radiator brush guard. Credit: Jochen Vollert Collection



Stuck in the snow, this Typ 1 1/2 of 1915 production has worm drive and pneumatic front tyres. It also boasts a prominent Nacke logo on the radiator's front. The vehicle of wartime production has already been equipped with a radiator brush guard and a military-grade closed cab that is here fitted with a winterisation kit. Note the empty licence plate. Credit: Jochen Vollert Collection





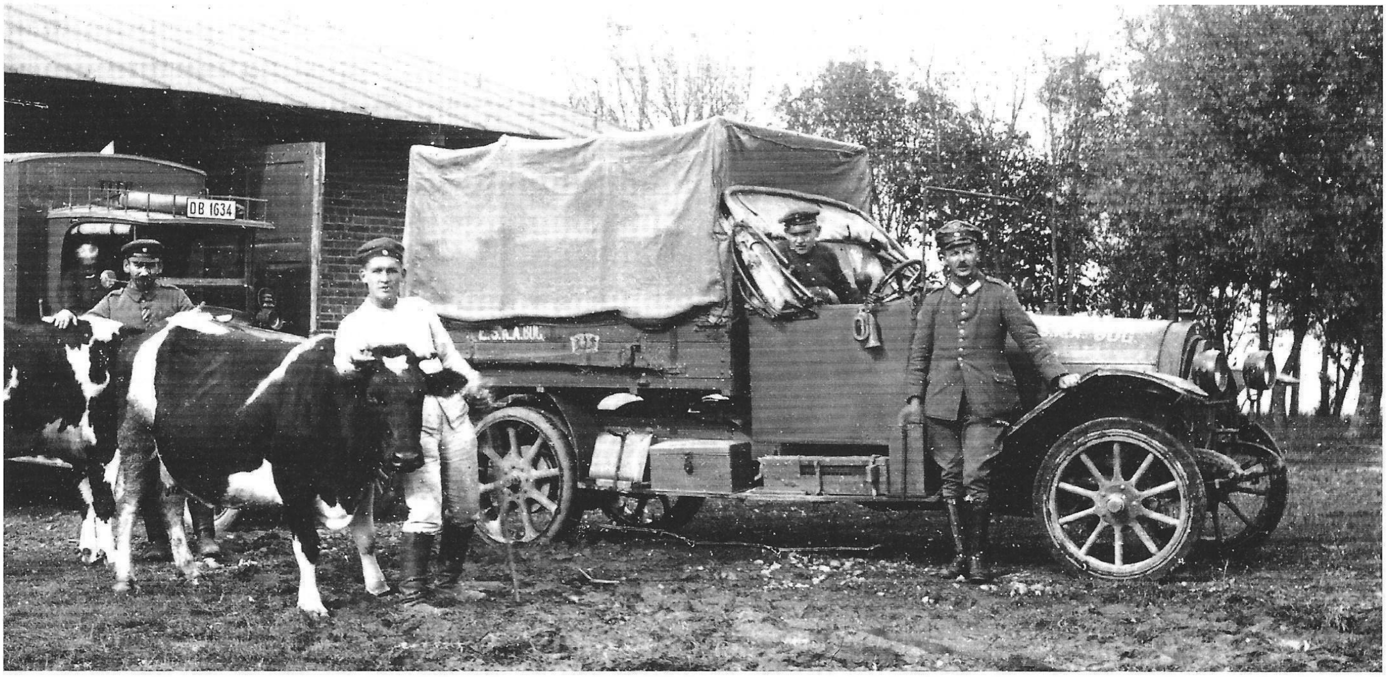
Photos of Nacke trucks, most of all the heavier-payload models, are almost unknown. Despite the odd shape of the radiator with its high-mounted crank starter aperture and three sections of radiator mesh, this is a rare Nacke *Typ 4* 3.5-ton *Heereswagen* of wartime production, here in service with the 2nd Army. Note the typical Nacke hatch with 15 louvres in the side of the engine compartment, and the additional pneumatic shock absorbers on the vehicle's front axle that were a Nacke patent fitted only to their military models. Note also the distinctive Nacke encapsulated dustproof chain drive on the rear axle. Oddly enough, the truck still has a soft-top. Credit: Jochen Vollert Collection

03.22 NAG / NAG Trucks

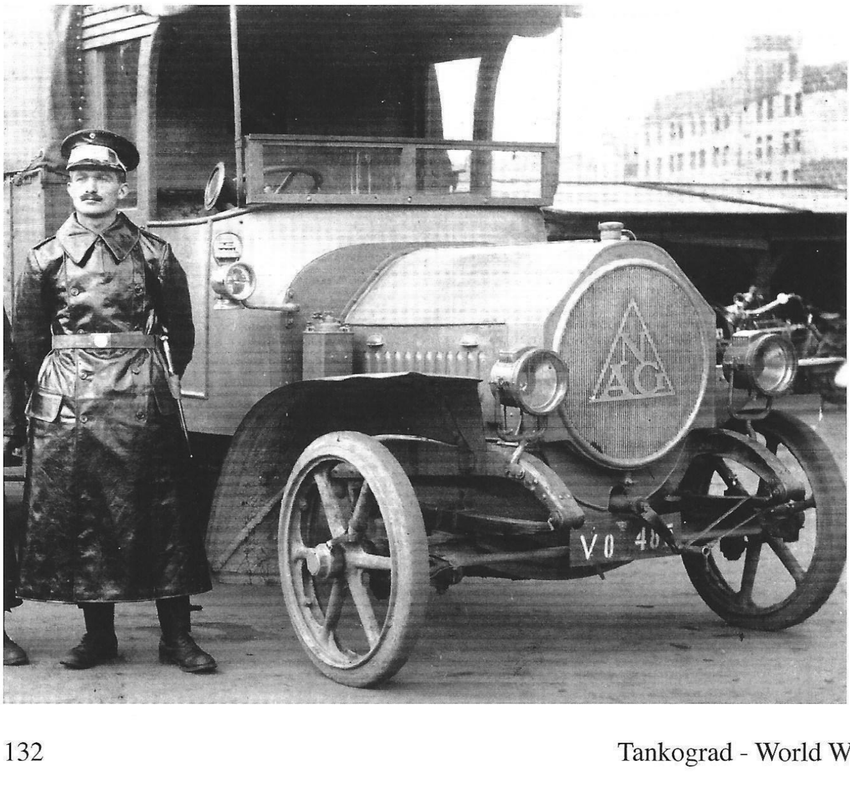
At the turn of the century, AEG – Allgemeine Elektrizitäts Gesellschaft – founded in 1883 and world famous for its electric machines, took an interest in motor vehicle production. In 1901 AEG founded a new automobile plant under the name NAG, or Neue Automobil Gesellschaft (New Automobile Association), in Oberspree, Berlin. NAG was made possible by amalgamating AAG (Allgemeine Automobil-Gesellschaft Berlin) and Kühlstein-Wagenbau. NAG built luxurious passenger cars plus delivery vans, and from 1903 also trucks and buses.
For patriotic reasons, Neue Automobil Gesellschaft became Nationale Automobil Gesellschaft, still NAG, in 1915. The first decade of NAG vehicles was dominated by about 15 types of commercial trucks powered by 2-cylinder and 4-cylinder engines producing 6hp to 45hp in the payload ranges of 2 tons, 3 tons, 4 tons, 5 tons and 6 tons. Relevant NAG designs for army use included:

°	B 07 17	*Regel-Dreitonner*	3.5-ton	powered by a 4-cylinder 32hp 8490cc engine	(built from 1913-18)
°	S 8 5	*Heereslastwagen*	5-ton	powered by a 4-cylinder 45hp 8490cc engine	(built from 1913-18)

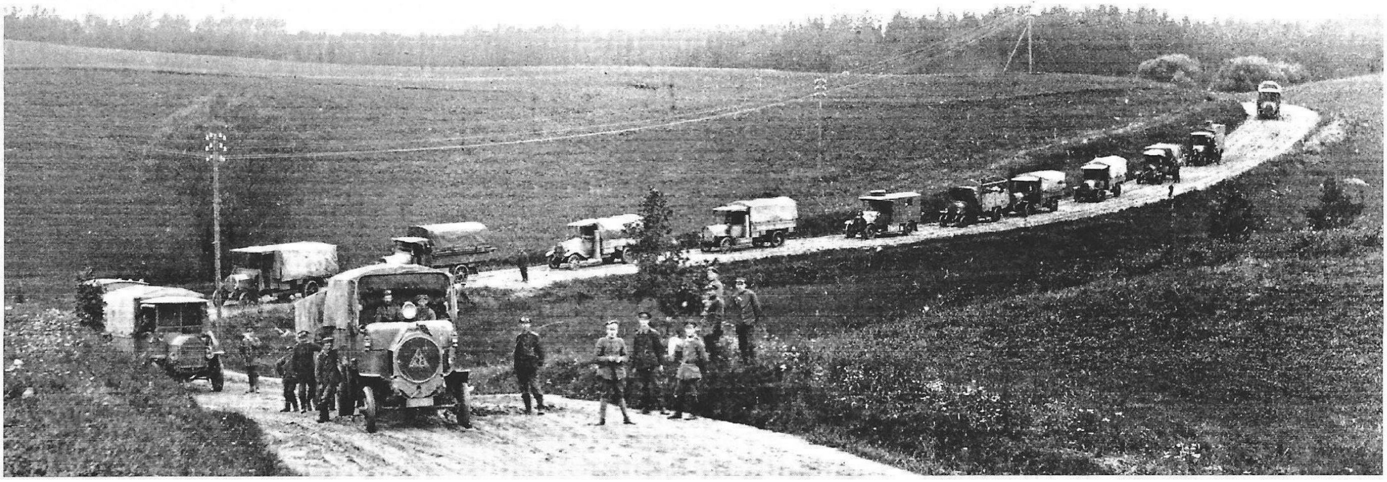
No NAG production figures have survived the tides of time.

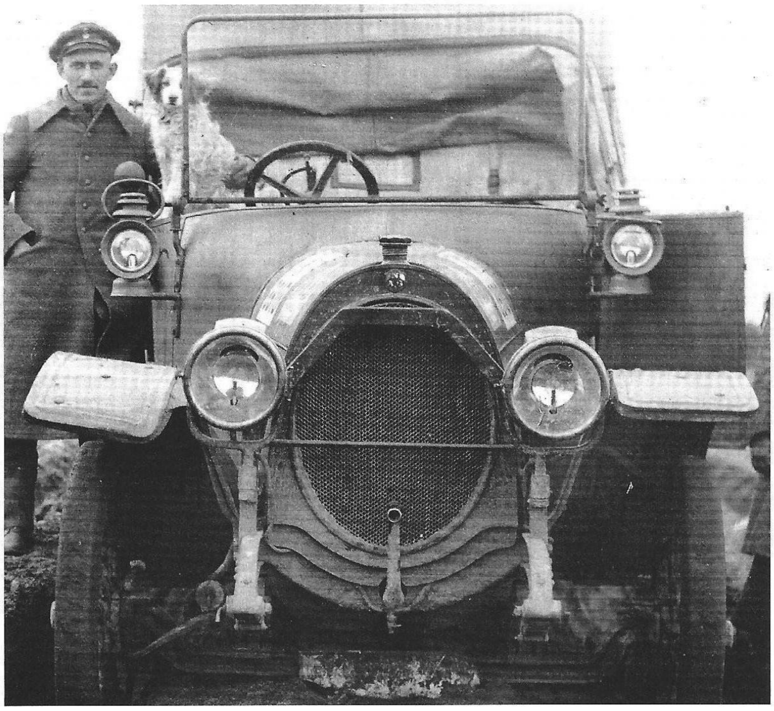


From 1903-12, NAG built approximately 15 main types of trucks, some of these also as buses. As with many other German makes of this period, many of these variants had a soft-top cab, a feature dropped in wartime in favour of a military-style closed cab with windscreen. In the early war years, the Imperial German Army impressed many motor vehicles from "civvy street", including light trucks. The pictured NAG light truck presumably is a 2-ton type, and the visible markings are a true treasure trove. This NAG belongs to *Etappen-Sanitäts-Kraftwagen-Abteilung Bug* (Rear Communications Area Medical Service Motor Vehicle Detachment Bug [the river running through the Ukraine, Belarus and Poland]) of the Prussian Army, and serving with *Deutsches Besatzungsheer in Rußland* (German Occupation Army in Russia) (note the *'DB'* licence plate on the truck behind). *'DB'* licence plates were only issued in 1917-18.
Credit: Jochen Vollert Collection



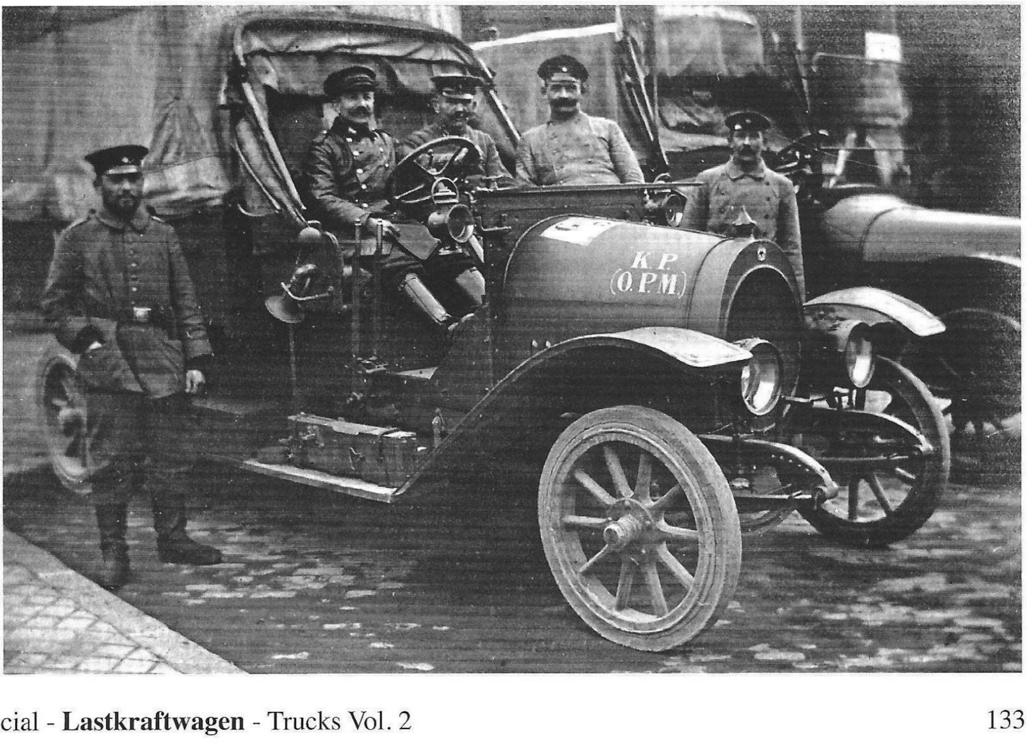
Early pre-war NAG truck types can also be identified by 'NAG' letters inside a triangle and fitted to the front of the radiator. The photo is dated September 1914.
Credit: Jochen Vollert Collection



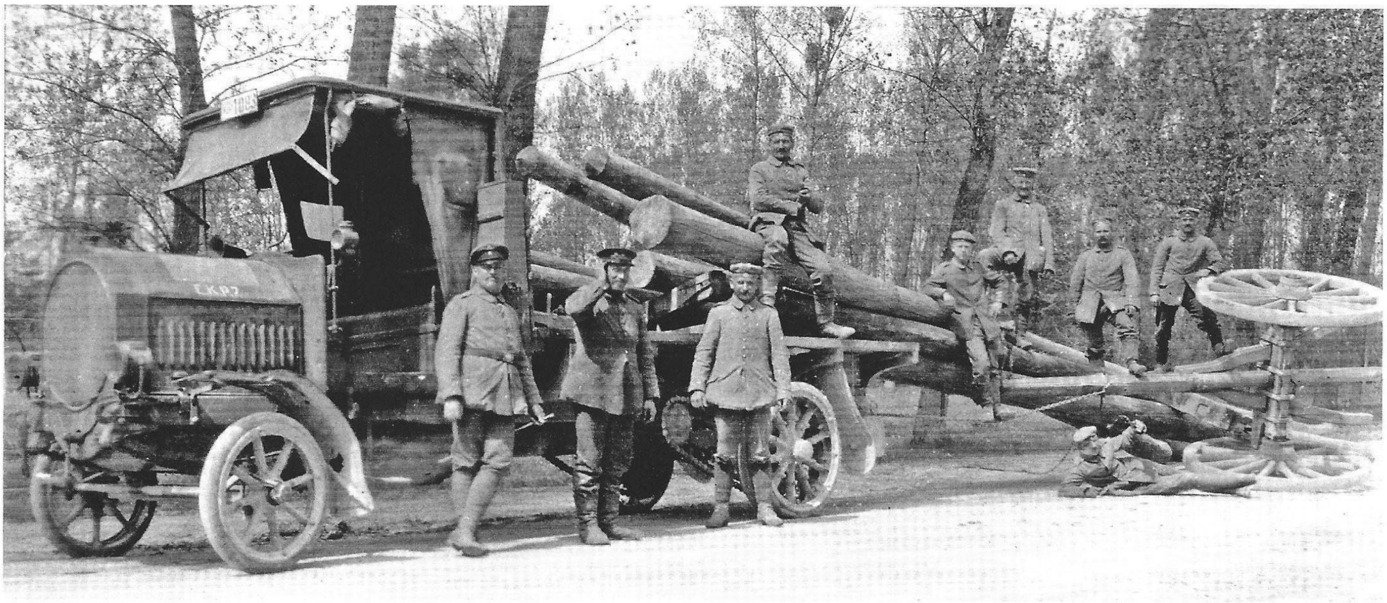


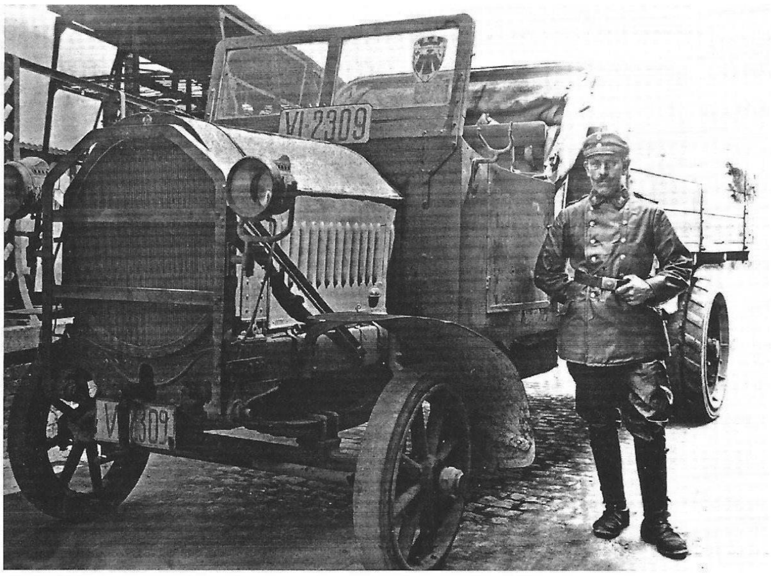
A typical *Etappen-Kraftwagen-Kolonne* rear communications area truck column, here led by an impressed pre-war NAG truck, presumably a 3- to 4-ton model with a soft-top and early radiator. Note also that the truck features a single large headlight rather than the standard two headlights. A closer look reveals that the entire column does not feature two identical types of vehicle – all are of different makes. This smorgasbord was caused by the inability of the German High Command to order the production of a standardised tactical truck type. Thus, each manufacturer offered its own interpretation of the *Regel-Lastwagen/Heeresmodell,* causing a logistical nightmare (e.g., in spare-parts supply).
Credit: Jochen Vollert Collection

The typical NAG radiator was oval and can thus be identified very well in photographs. Shortly before the war, NAG switched from the large NAG logo inside a triangle to a more subtle logo in a small hexagonal badge with the letters N, A and G in white on three inserted back hexagons. Note also the layered lower end of the radiator casing.
Credit: Jochen Vollert Collection



Another pre-war commercial NAG truck, once more presumably a 2-ton model. Note the new logo above the oval radiator front, the soft-top cab, the massive lifting jack on the footboard and the four headlights. Another indicator of a civilian model is the external brake/ gearshift lever outside the cab, to the right of the driver. Note also the non-standard filler neck on top of the radiator. The unit marking on the bonnet is that of *Kraftfahrzeug-Park (Ober-Post-Meister)* of the field mail service. The photo is dated November 1916.
Credit: Jochen Vollert Collection

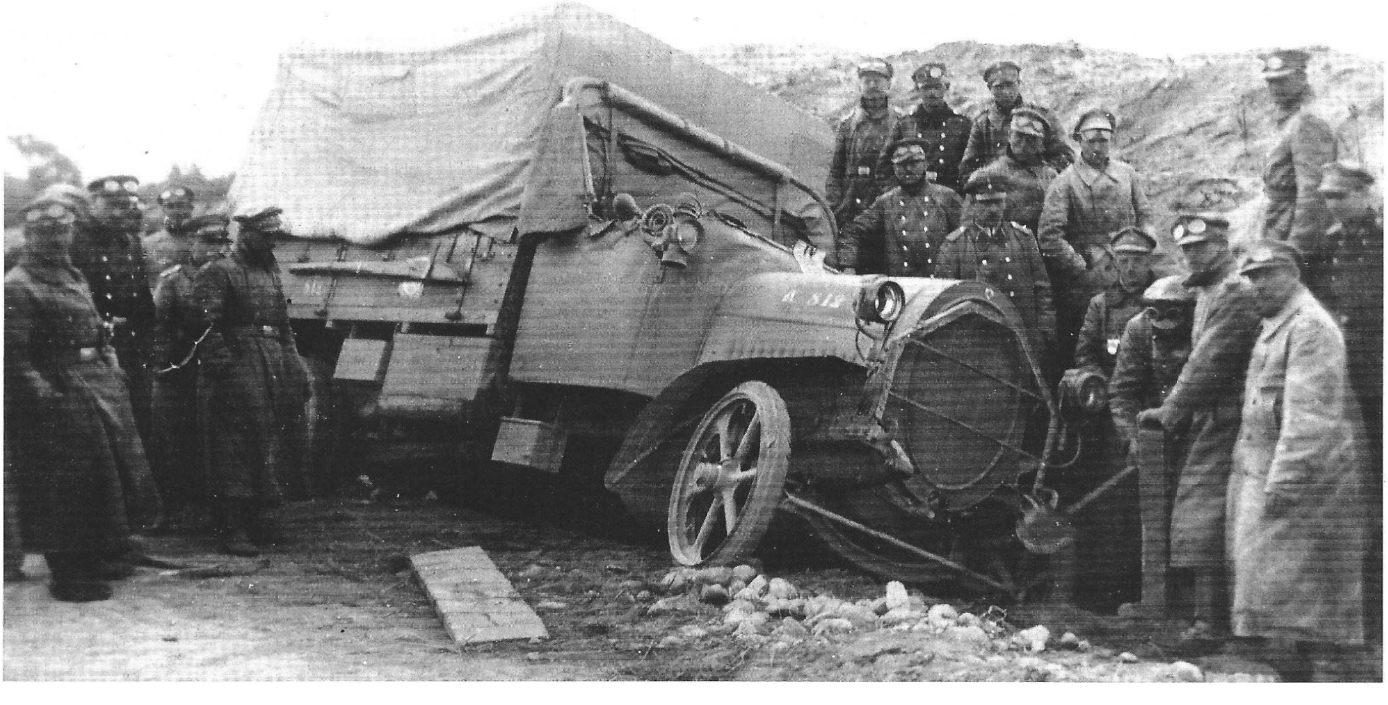


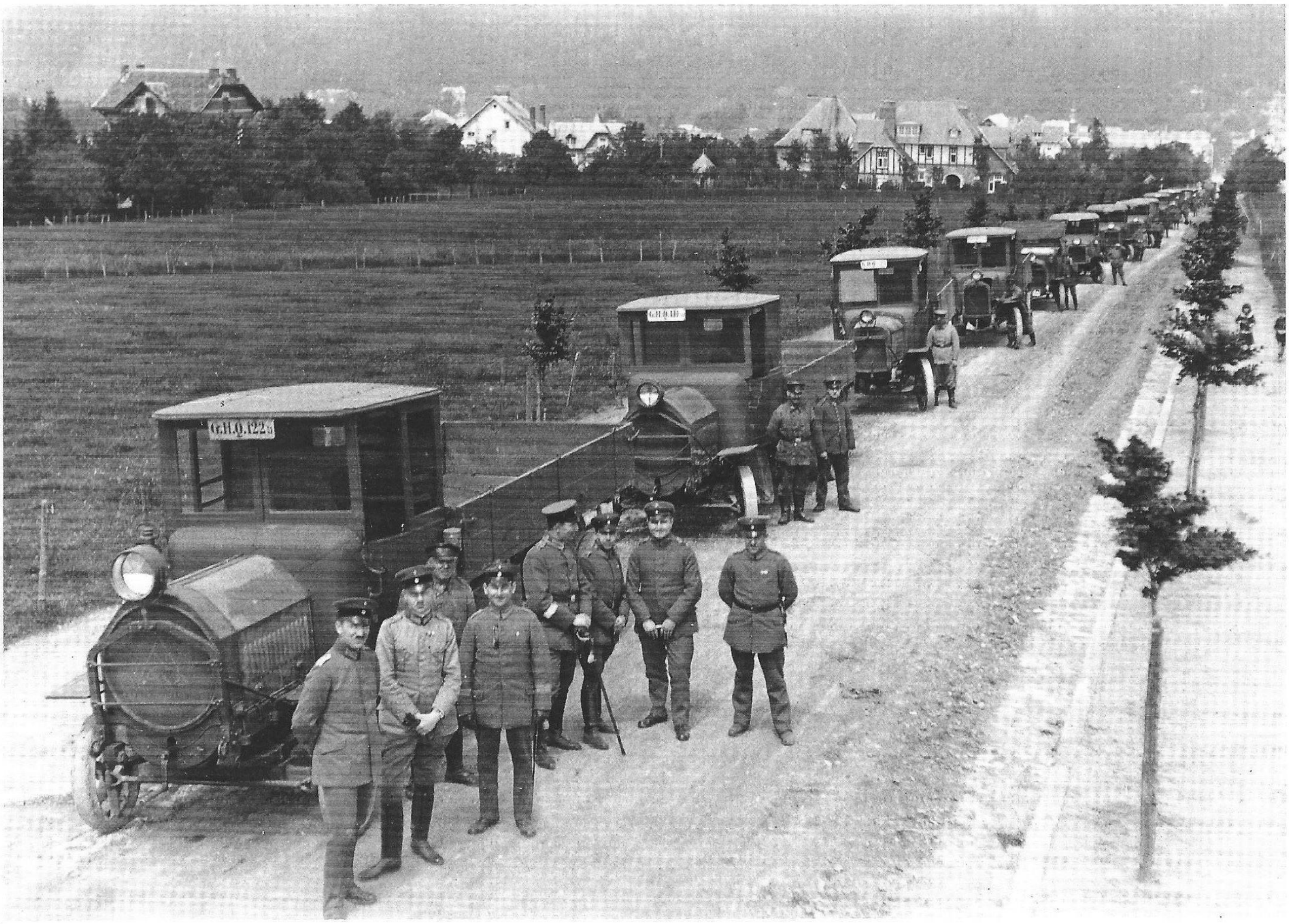


The largest NAG pre-war commercial model was the 4-ton truck of 1912. This example in service with *Etappen-Kraftwagen-Park 7* of *XII Armee* was being used in connection with a dolly trailer to transport logs when an accident happened. Army trucks were frequently employed to do agricultural work in German-occupied territory behind the frontlines. Note the visible chain drive and the civilian cab.
Credit: Jochen Vollert Collection

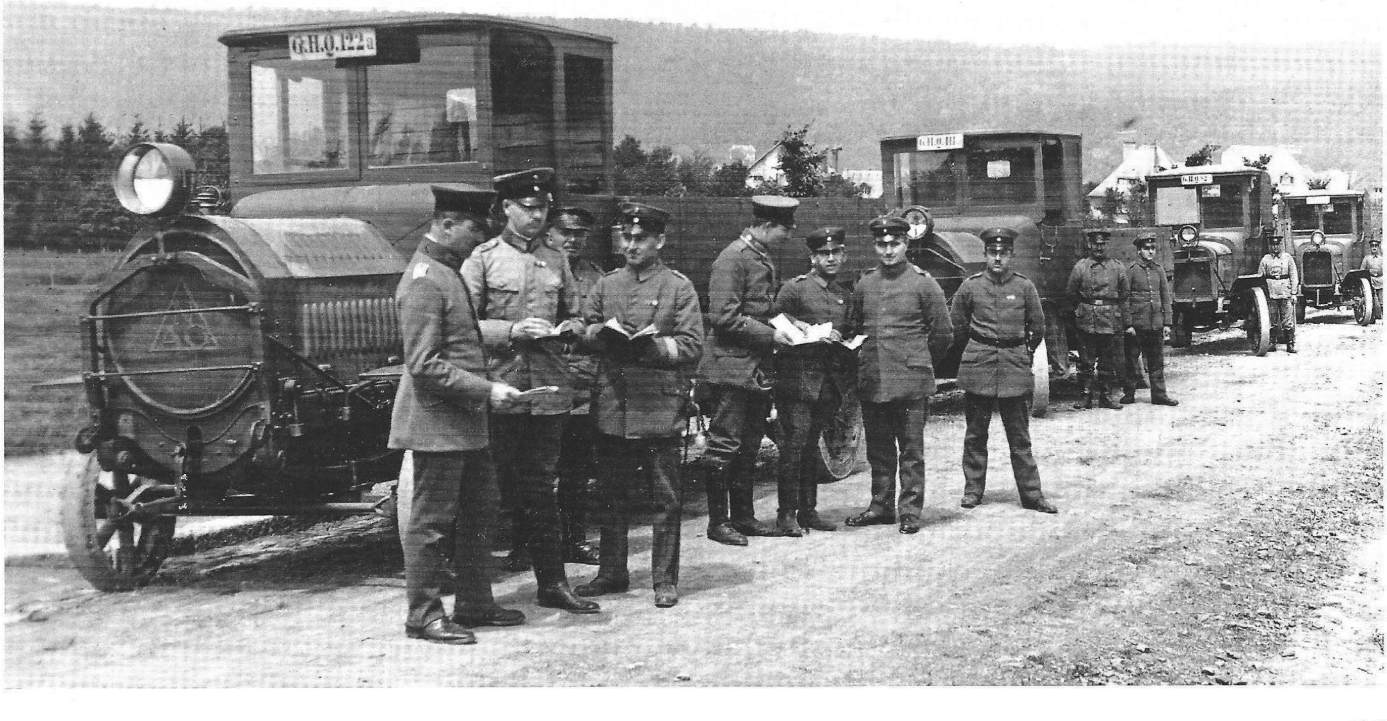
Another commercial NAG 3- to 4-ton truck, impressed this time to serve the 6th Army, and equipped with an improvised radiator brush guard and anti-slip rims on the double rear wheels. The photo is dated 1918.
Credit: Jochen Vollert Collection

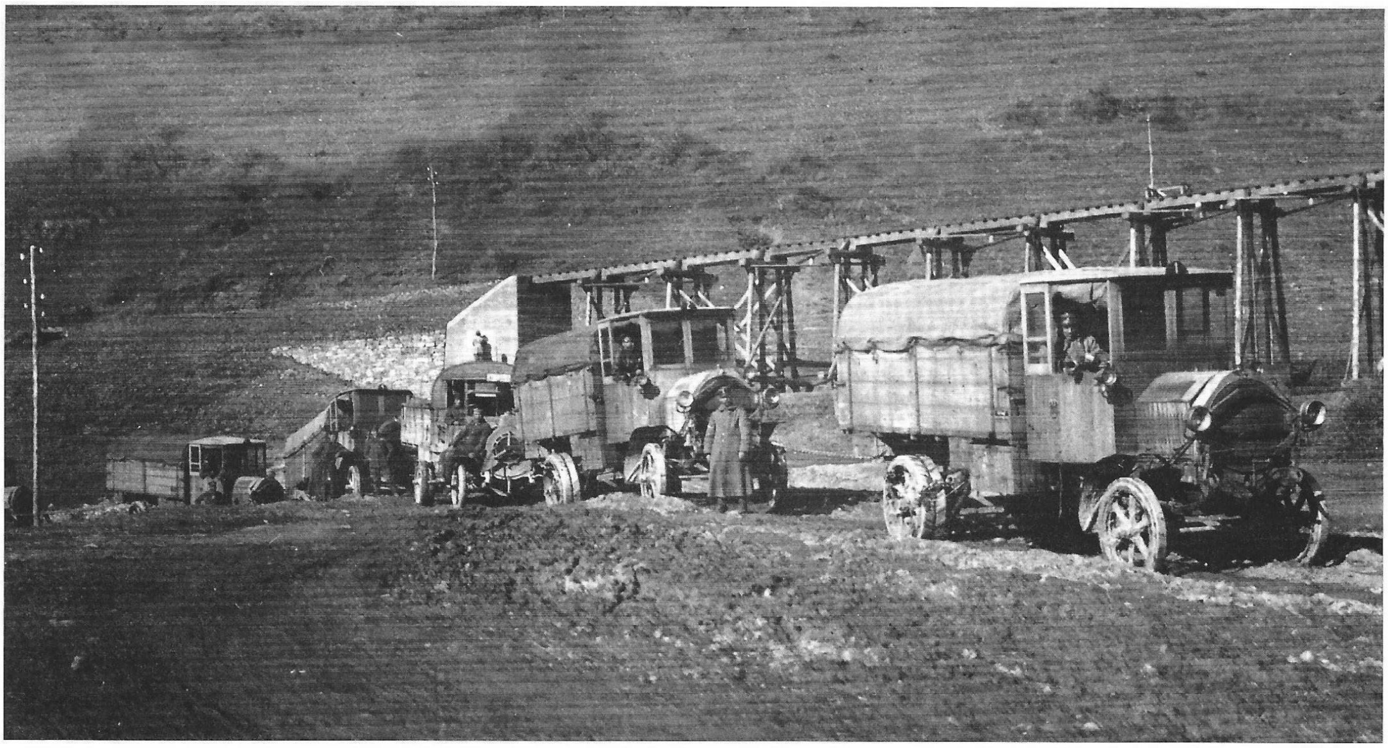
An impressed NAG 3- to 4-ton truck, partially militarised yet still featuring the open soft-top cab. Accidents of sorts happened all the time due to inexperienced and often overworked drivers, as well as bad roads in the occupied territories. The truck is in service with *Armee-Abteilung A*.
Credit: Jochen Vollert Collection



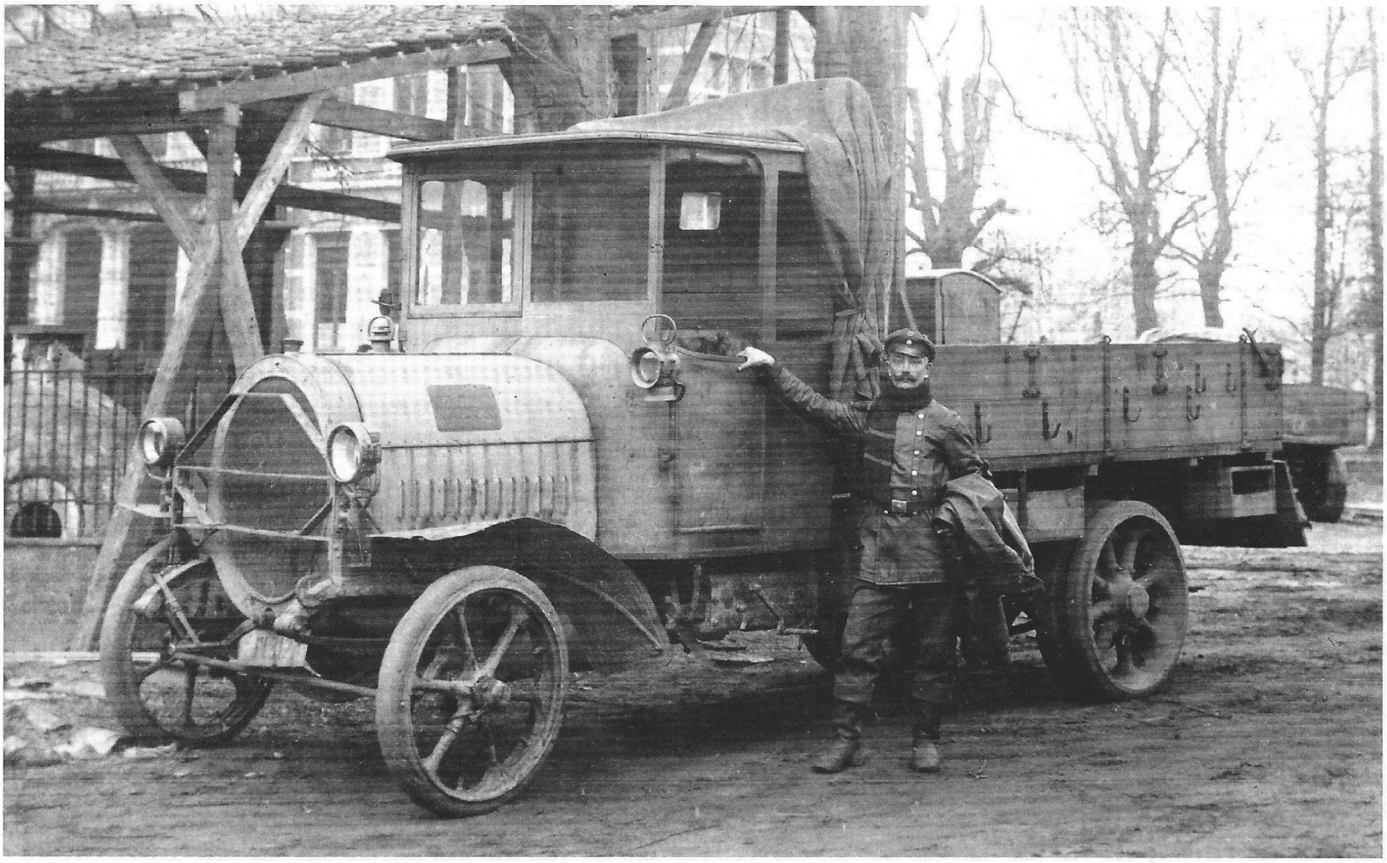


Two photos of the same truck column led by two civilian NAG 3- to 4-ton models. Note the early radiator with early logo, yet already equipped with a civilian hardtop cab with windscreen that would be adopted for the later *Regel-Lastwagen/Heeresmodelle* B 07 17 and S 8 5. The licence plate denotes the *Großes Haupt-Quartier* (Supreme Headquarters) with '*122 a*' signifying a vehicle of the *Kraftfahrpark* motor pool of the unit. Once more the trucks have been equipped with a single large headlight fitted in front of and above the radiator. The larger headlight granted better visibility and saved on scarce spare parts (e.g., instead of the usual four lamps). A rarely seen detail is the second line of louvres in the bonnet, and not just in the engine compartment sides. Credit: Jochen Vollert Collection

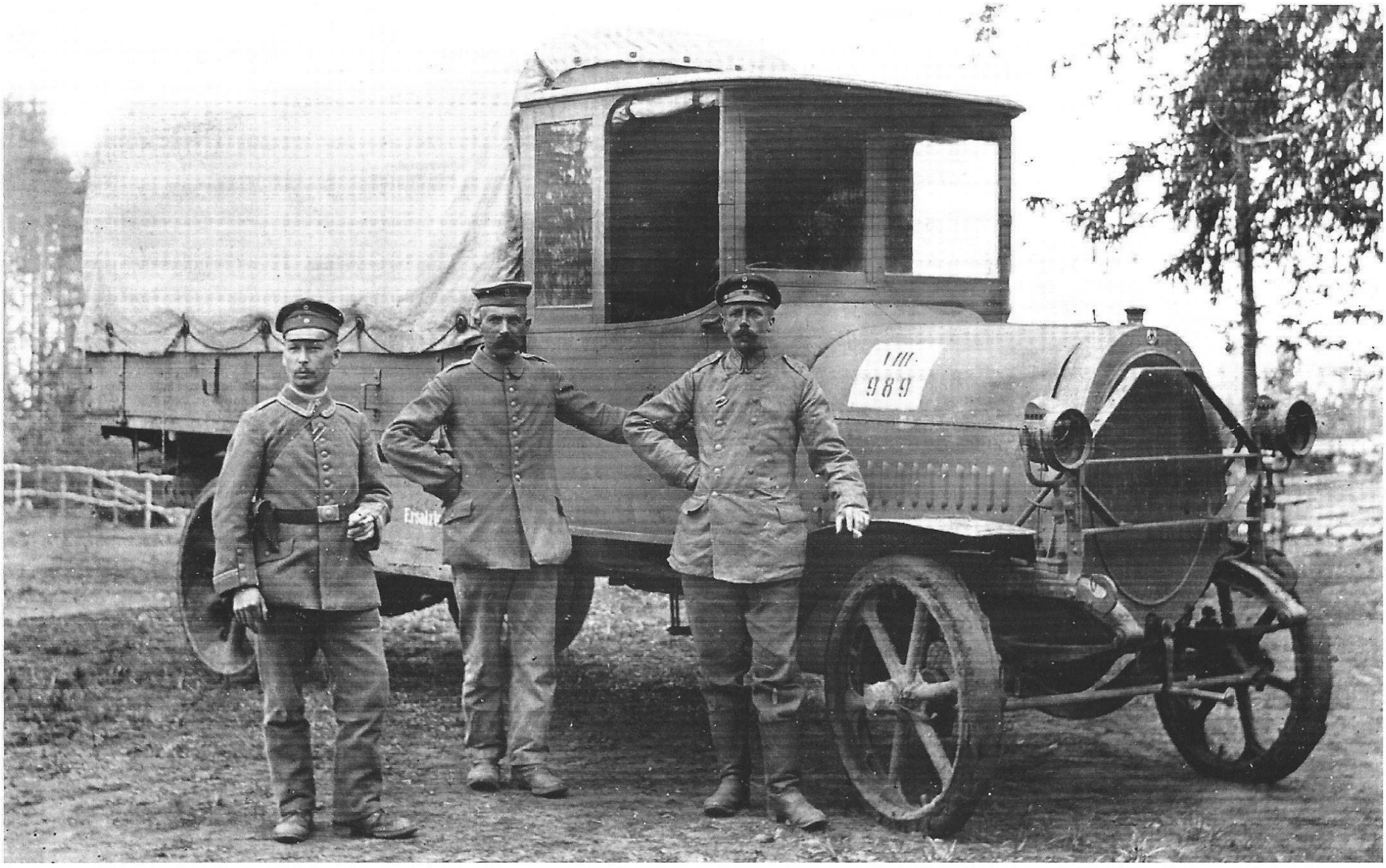




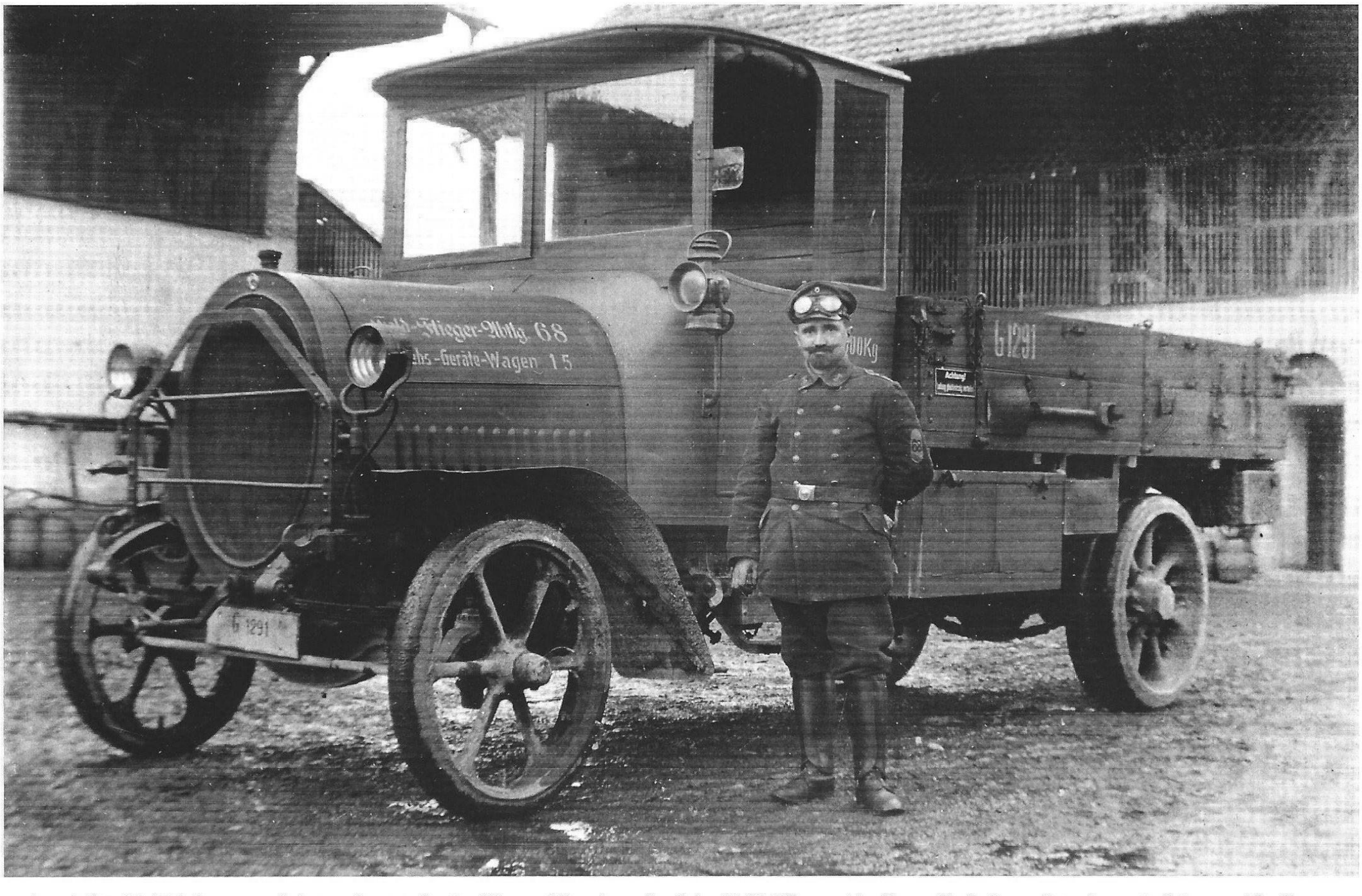
In the transitional period between commercial truck production and the switch to wartime models, the hardtop cab was introduced. NAG 4-ton trucks in this photo are still commercial models; note the double row of louvres, yet they have been fitted with field-improvised hardtop cabs. Note the difference in cab design when compared to the photos on the previous page, and the military-style cab in the next photos. To overcome a steep slope, the trucks in this picture have been connected by metal chains. Credit: Jochen Vollert Collection



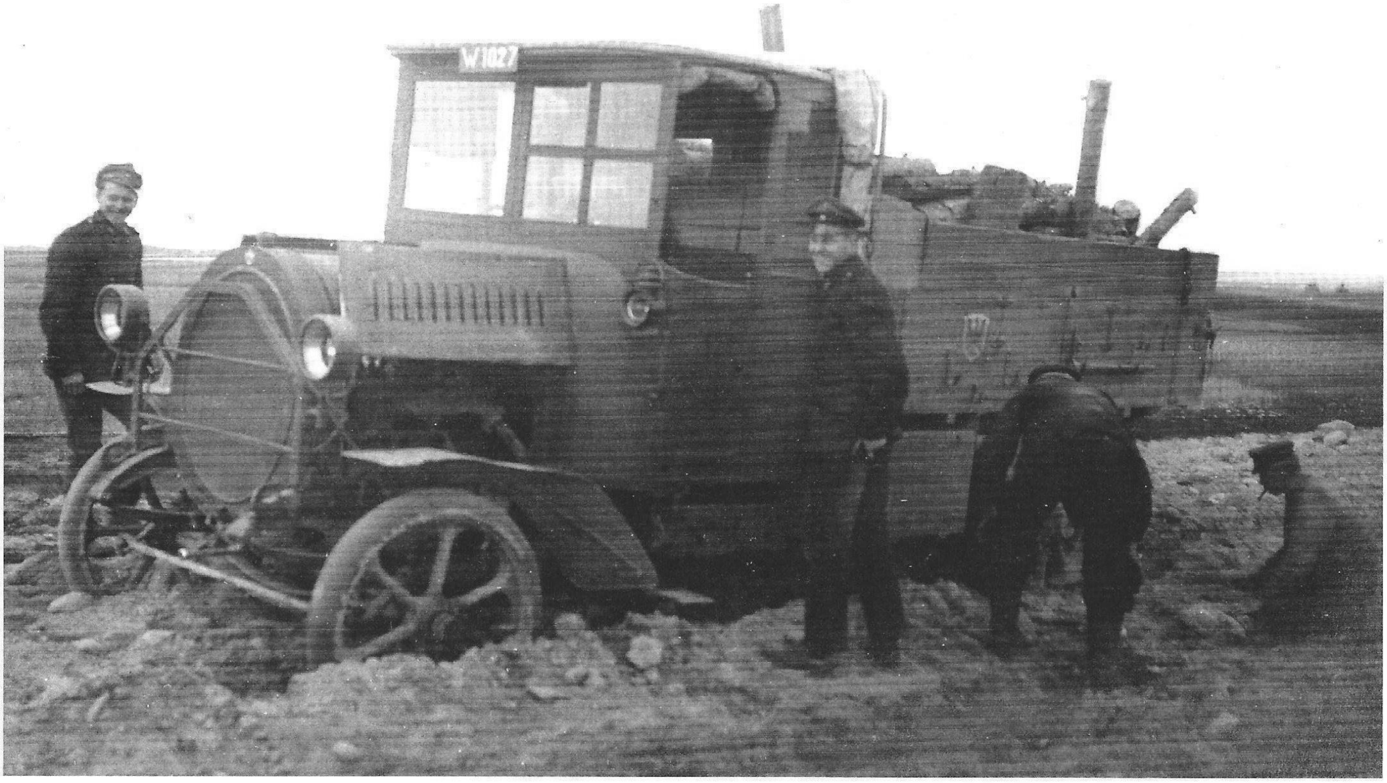
Shown here is the quintessential NAG B 07 17 3.5-ton *Heereslastwagen* as built for the Imperial Army from 1913-18. Powered by a 4-cylinder 32hp 8490cc engine, it met the *Regel-Dreitonner* specifications. Typical design features of the military model are a hardtop cab with two equally sized windscreens, four headlights, twin rear wheels, a cargo bay with hoops and tarpaulin, only one row of louvres in the sides of the engine compartment, a radiator with small logo on top, and a hexagonal radiator brush guard made from a flat steel strip. Unusual are the low side panels on the cargo bay. There is a lack of surviving photographic documentation, but the S 8 5 5-ton version with a 4-cylinder 45hp 8490cc engine would have had identical external identification features, possibly only with improved leaf spring suspension. Credit: Jochen Vollert Collection



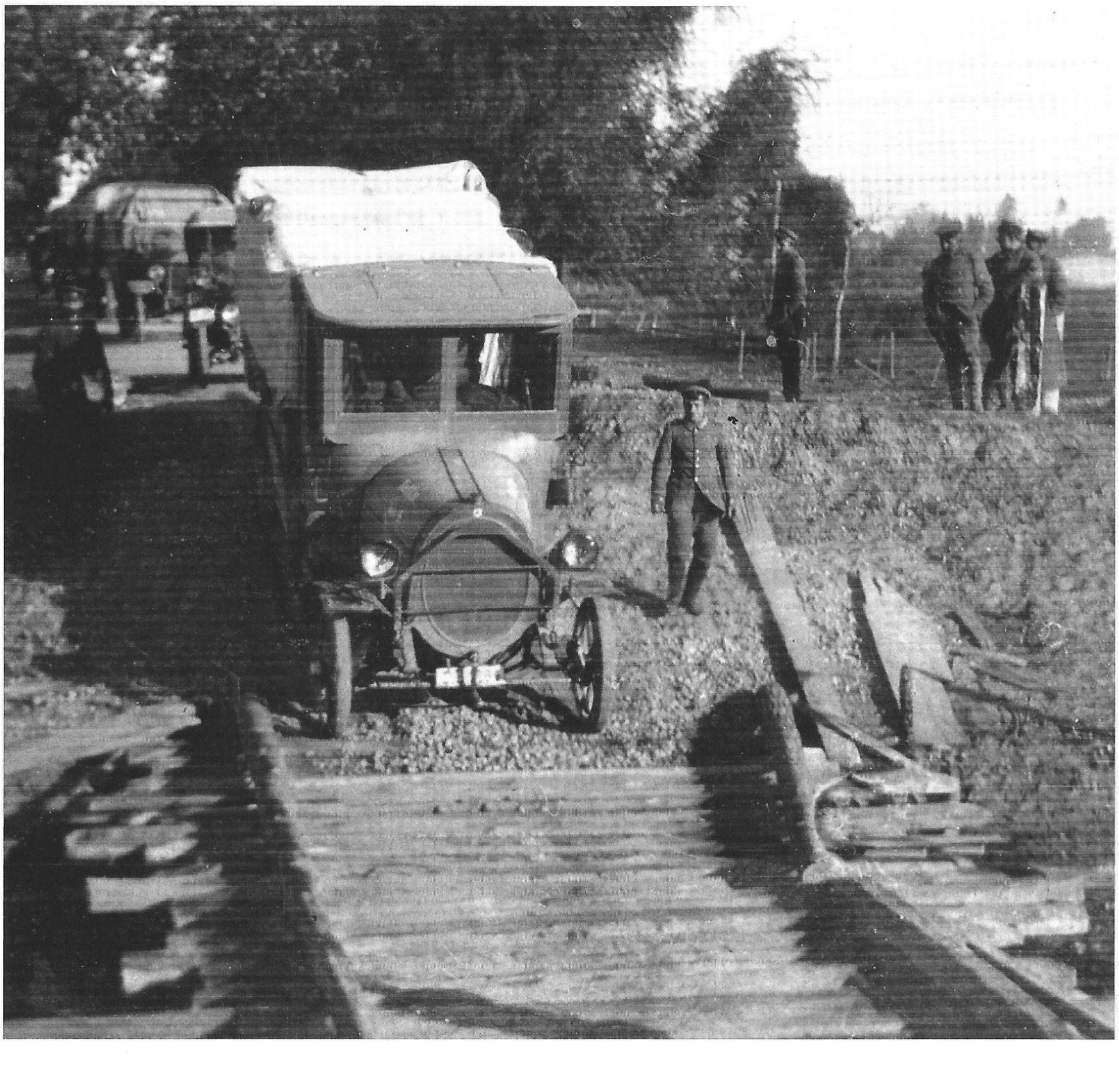
A right-hand side view of the standard NAG B 07 17 3.5-ton *Heereslastwagen*, here in service with *VIII Armee.* Credit: Jochen Vollert Collection



This NAG B 07 17 3.5-ton truck is serving as *Geräte-Wagen 15* tool truck of the *Feld-Flieger-Abteilung 68* air force detachment of *Armee-Abteilung Gaede*. Note once more the low side panels of the cargo bay, and this time the spade is fitted and the brush guard is made of L-shaped sections rather than flat steel strips. The placard reads: '*Ladung gleichmäßig verteilen!*' - distribute loads evenly. Credit: Jochen Vollert Collection

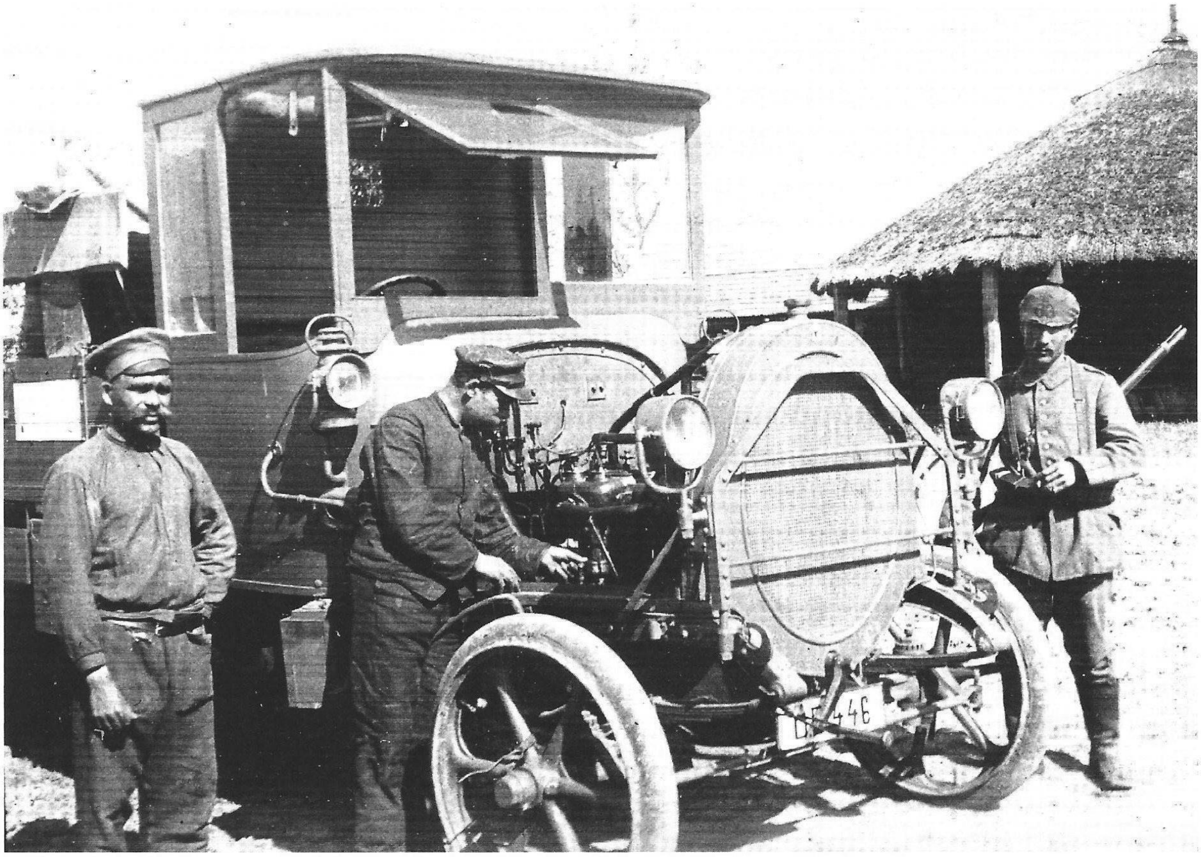


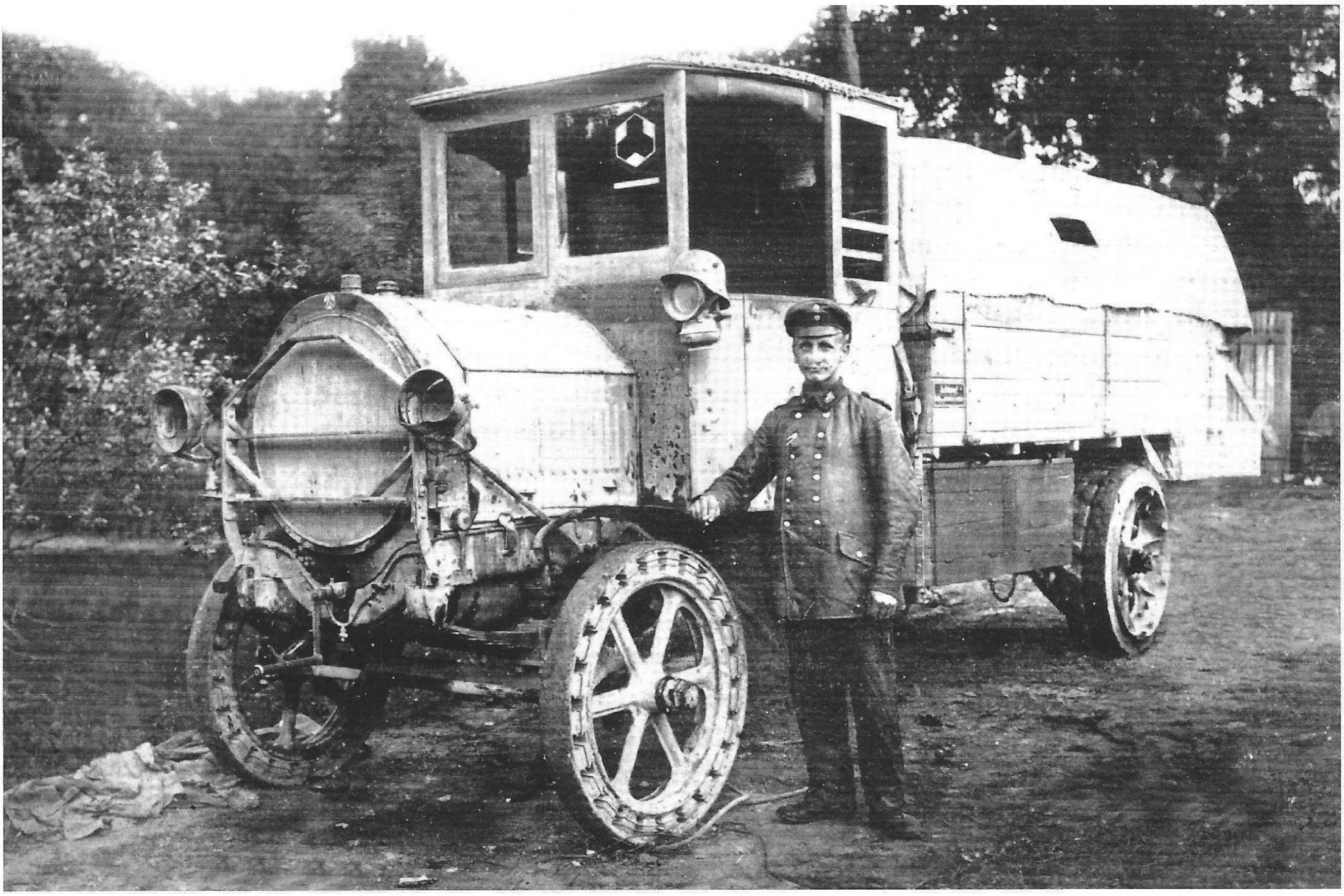
Another NAG B 07 17 with a radiator brush guard made of L-shaped flat steel. The unusual licence plate in white on black and starting with '*W*' is that of *Armee-Abteilung Woyrsch* (1914-17). The low cargo bay side panels have been boosted with extensions. The photo is dated August 1917.
Credit: Jochen Vollert Collection



This unusual perspective allows a look at the roof of the hardtop cab and reveals two lines of screws, presumably for a roof rack to be fitted. The '*DB*' licence plate once more is that of German occupation forces in the Brest-Litwosk region of Russia.
Credit: Jochen Vollert Collection

A close-up of an NAG truck's open engine compartment. Once again the '*DB*' licence plate reveals the location as the German-occupied part of Imperial Russia. Credit: Jochen Vollert Collection





The *Kriegsbedingte Notbereifung* tells it was 1918 when this NAG 3.5-ton vehicle was photographed. The truck is bent and battered, and has certainly seen better times. The radiator brush guard is made of flat steel, while the two frontal headlights are destroyed. Note the steel helmet "protecting" the upper headlight, and that the cargo bay features high side panels. The curious marking inside the windscreen is the NAG logo - German army units of World War One generally did not have unit insignia, only designations. Credit: Jochen Vollert Collection

03.23 Opel / Opel Trucks

One of the few companies to make a lasting impression in World War One motor vehicle production, and which is still around as a major player in Germany today, is the company Adam Opel from Rüsselsheim. Opel is also one of the very few motor vehicle producers of that early era with its production history surviving, a fact reflected in more detailed data in this chapter.

The motor vehicle heritage of the Opel company, founded as a manufacturer of sewing machines in 1862, dates back to 1899. In that year, Opel Werke took over Anhaltinische Motorwagen Fabrik (which had built one-cylinder vehicles from 1893) to expand its range of products. In the same year, the first eleven patented System Lutzmann motor vehicles were completed under the new label. However, sales of the new products in 1900 did not catch on, and only 24 Patent-Motorwagen System Lutzmann passenger cars could be sold, a fact that caused cancellation of this cooperation one year later after only 65 passenger cars had been produced. 1901 saw the launch of Opel's motorcycle production, yet it was halted only six years later. In late 1901, Opel signed a contract for licenced production of Darraq passenger cars, with the first one leaving the factory in 1902. In 1904 Opel built its first commercial truck, of which eight were sold.

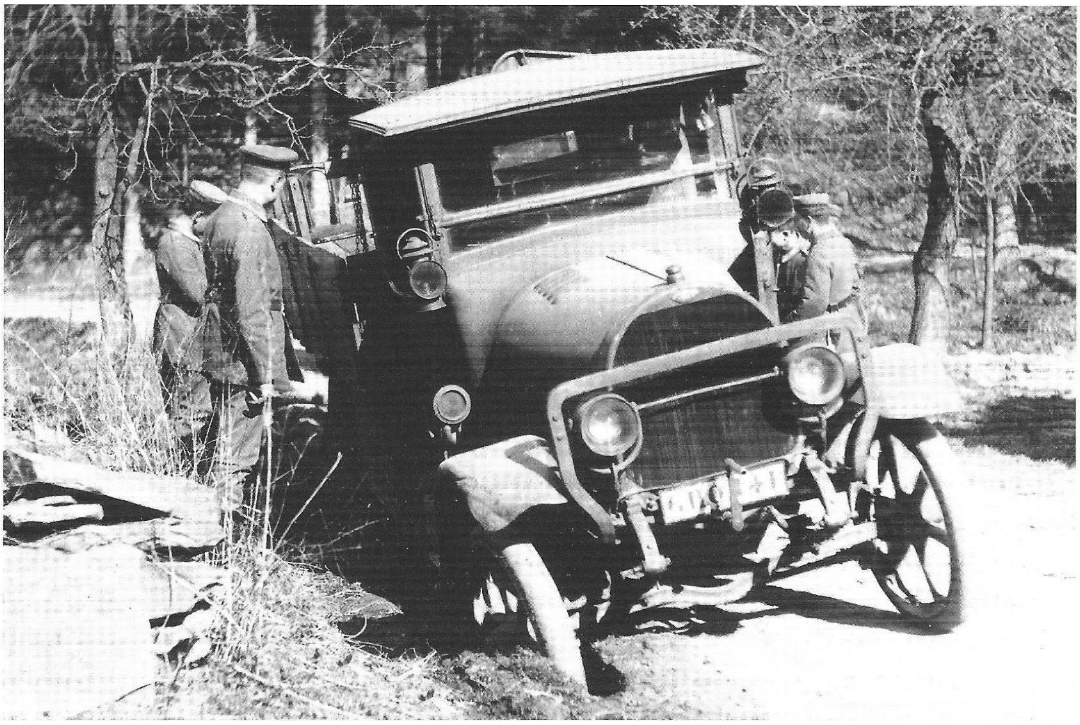
In 1905 followed 17 delivery vans and small trucks, 26 in 1906, 24 in 1907, 30 in 1908, 47 in 1909 and 59 in 1910. In 1911 Opel developed a 3-ton truck that participated in (and won) the Imperial Russian Reliability Test Drive for Subsidy Trucks, and a total of 112 trucks rolled out of the factory. Some 164 commercial vehicles followed in 1913. Interestingly, Opel trucks did not participate in Imperial German *Vergleichsfahrten* trials for *Armeelastzüge* truck-trailer combinations that were held before the war.

In 1907 Opel became Imperial Germany's largest manufacturer of passenger cars. In 1914 Opel produced 3,335 passenger cars yet only 184 trucks. This figure was inverted from October 1914 when the entire production was switched towards the war effort and in 1915 Opel already built 1,117 trucks yet only 791 passenger cars. One year later, in 1916, Opel joined in the manufacture of aircraft engines and launched the Typ 18/50 truck with a 6-cylinder engine. Total production that year was 1,090 trucks. In 1917 Opel built 871 passenger cars and 1,134 commercial vehicles. Only one year later, in 1918, truck production reached 1,112 before the war came to an end.

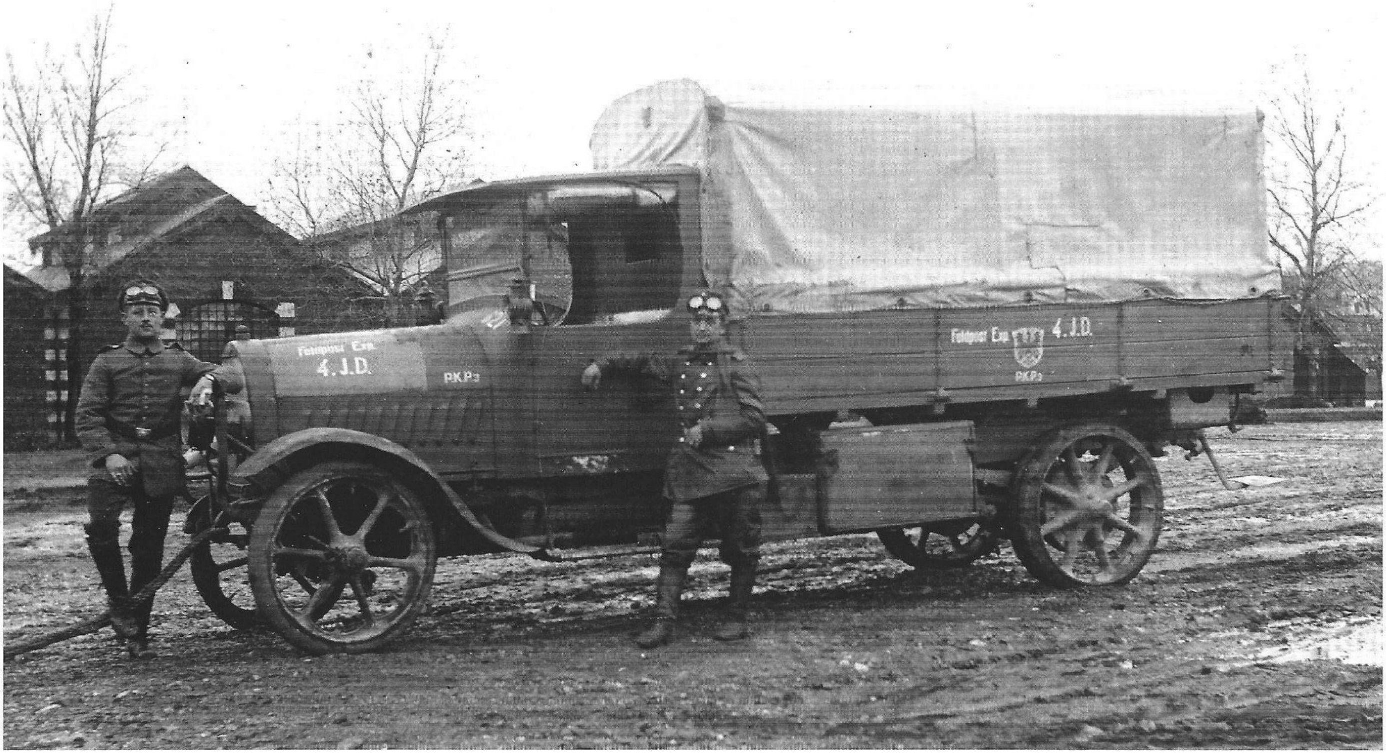
Most pre-war commercial vehicles were delivery vans and trucks in limited 0.25-ton to 1.5-ton payload ranges, and therefore they are not part of this publication. The trucks built by Opel and that became part of the wartime military arsenal (subsidy, impressed commercial or purpose-built for the army) were the

°	2-ton	powered by a 4-cylinder 37.5hp 3400cc engine	(built from 1912-16)
°	3-ton	powered by a 4-cylinder 35hp 4084cc engine	(built from 1912-13)
°	3-ton	powered by a 4-cylinder 45hp 5050cc engine	(built from 1912-13)
°	4-ton	powered by a 4-cylinder 45hp 5050cc engine	(built from 1912-13)
°	4-ton	powered by a 4-cylinder 45hp 6232cc engine	(built from 1912-23)
	Sold from 1912 as *Subventionswagen* subsidy truck and from about 1915 as *Regel-Lastkraftwagen* with military specifications		
°	3- to 4-ton	powered by a 4-cylinder 40hp 6232 cc engine	(built from 1914-18)
	Built only as *Regel-Lastkraftwagen* with military specifications during the war, civilian version from 1919-23		

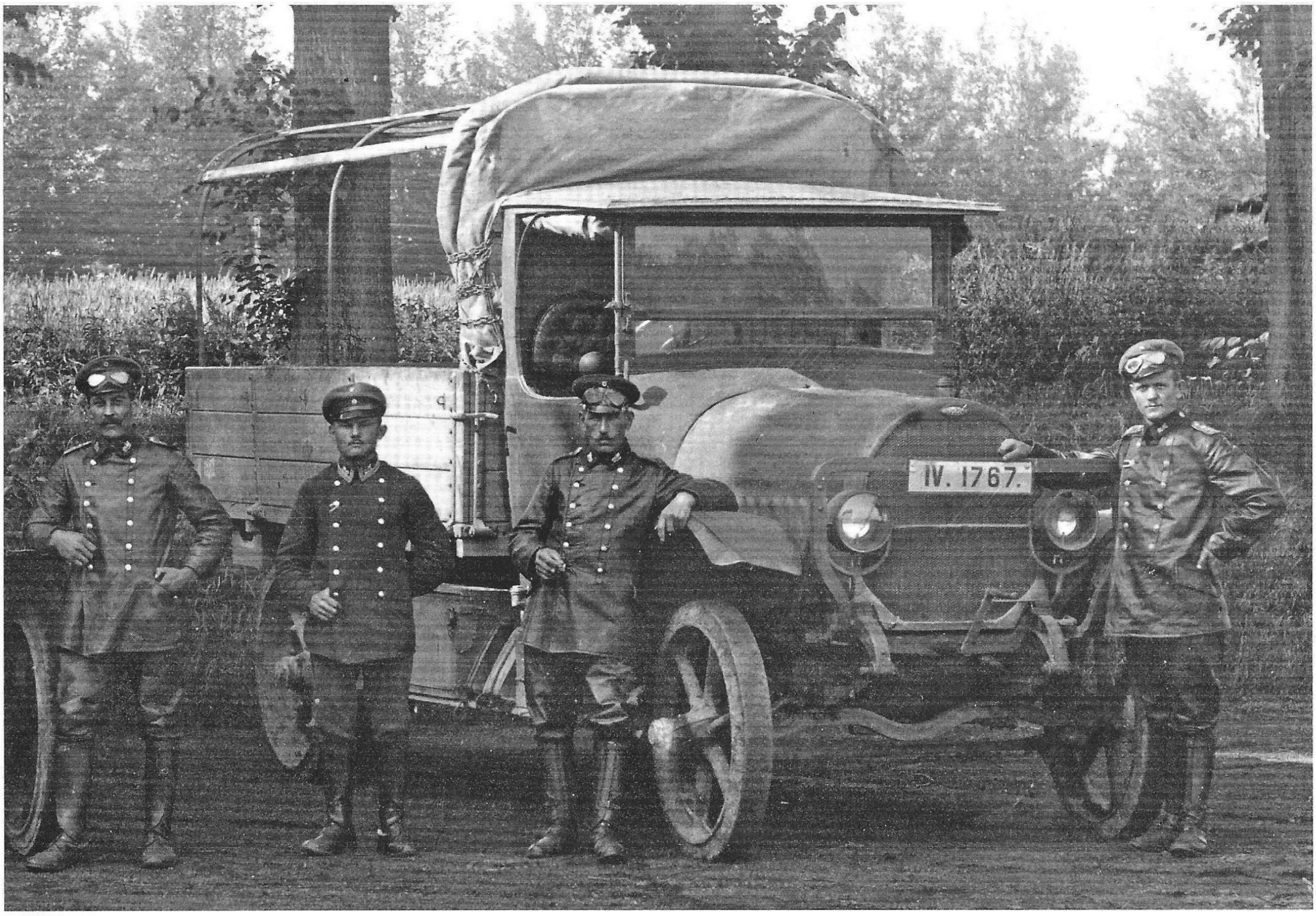
A 4.5-ton wartime truck with a 50hp engine is mentioned in some sources, but it could not be verified using Opel files. Total Opel wartime truck production is estimated at 4,000+ vehicles. The most famous Opel truck, however, would become the 3-ton Blitz built from 1936-44.



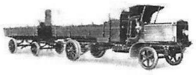
One identification feature of pre-war commercial-vehicle types built by Opel are the louvres on the engine compartment sides as well as on the bonnet, as are visible on this impressed 2- to 3-ton type. Also visible in this photo is the typical Opel logo on the upper end of the radiator front, and the radiator brush guard with headlights inside the frame. The licence plate is that of the *Großes Haupt-Quartier* (Supreme Headquarters).
Credit: Jochen Vollert Collection

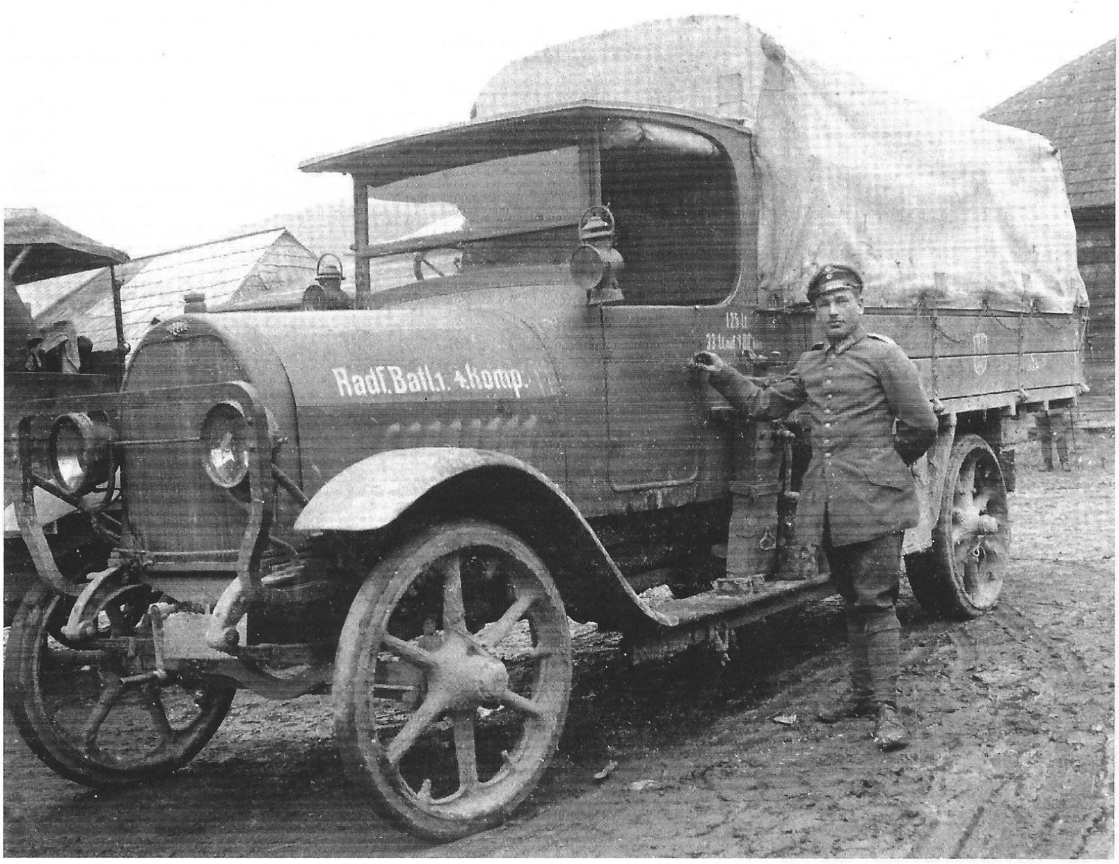


The louvres on the bonnet reveal that this is one of the 3- to 4-ton pre-war Opel truck types, here in service with the *Feldpost-Expedition* field mail service of the 4th Infantry Division of the Prussian Army. Credit: Jochen Vollert Collection

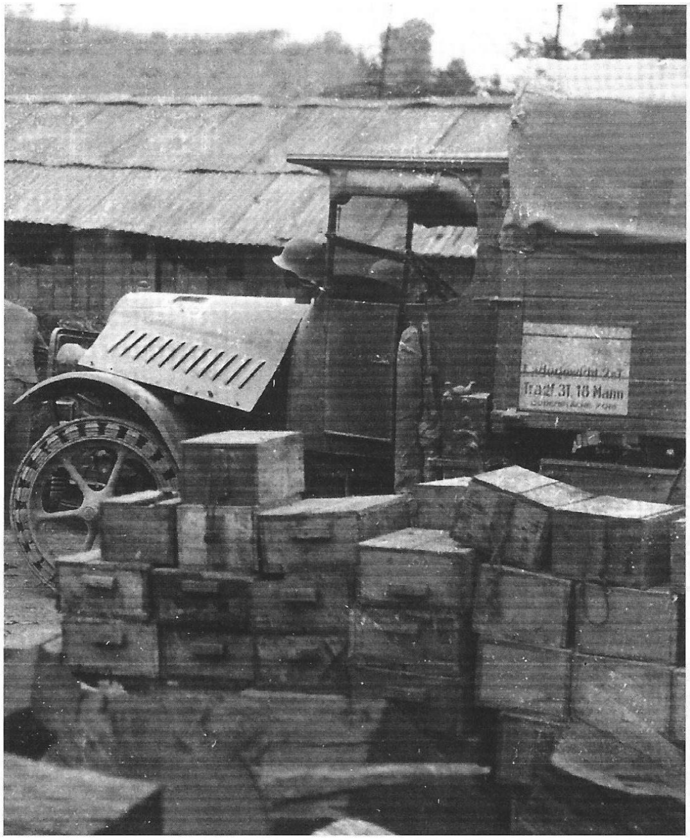


A typical pre-war design of an Opel 3- to 4-ton model; observe the barely recognisable louvres on the bonnet. This truck is serving in the 4th Army (note the licence plate), and it features the typical *Plane/Pritsche* cargo bay with tarpaulin bows. Also note that Opel used a one-piece main windscreen. Credit: Jochen Vollert Collection

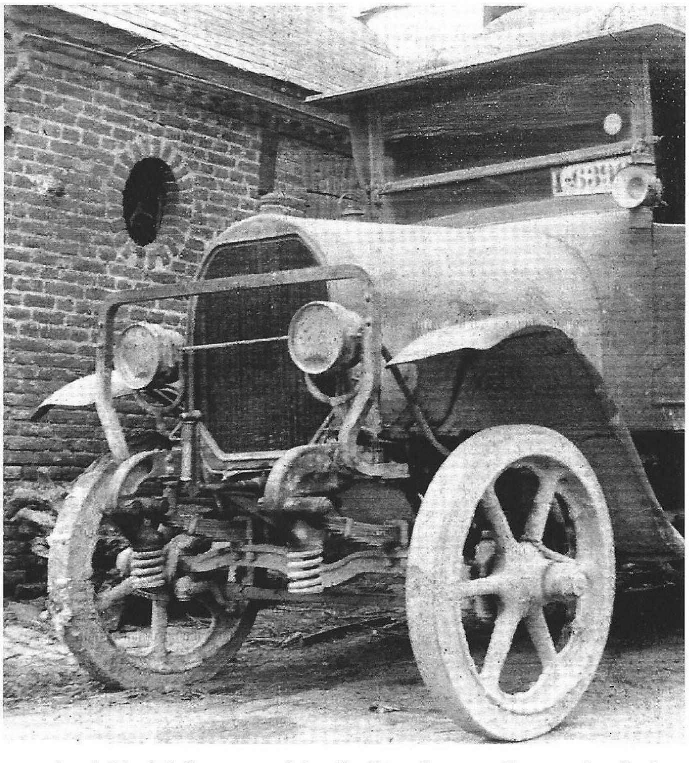



Radf. Batl. 1. 4. Komp.

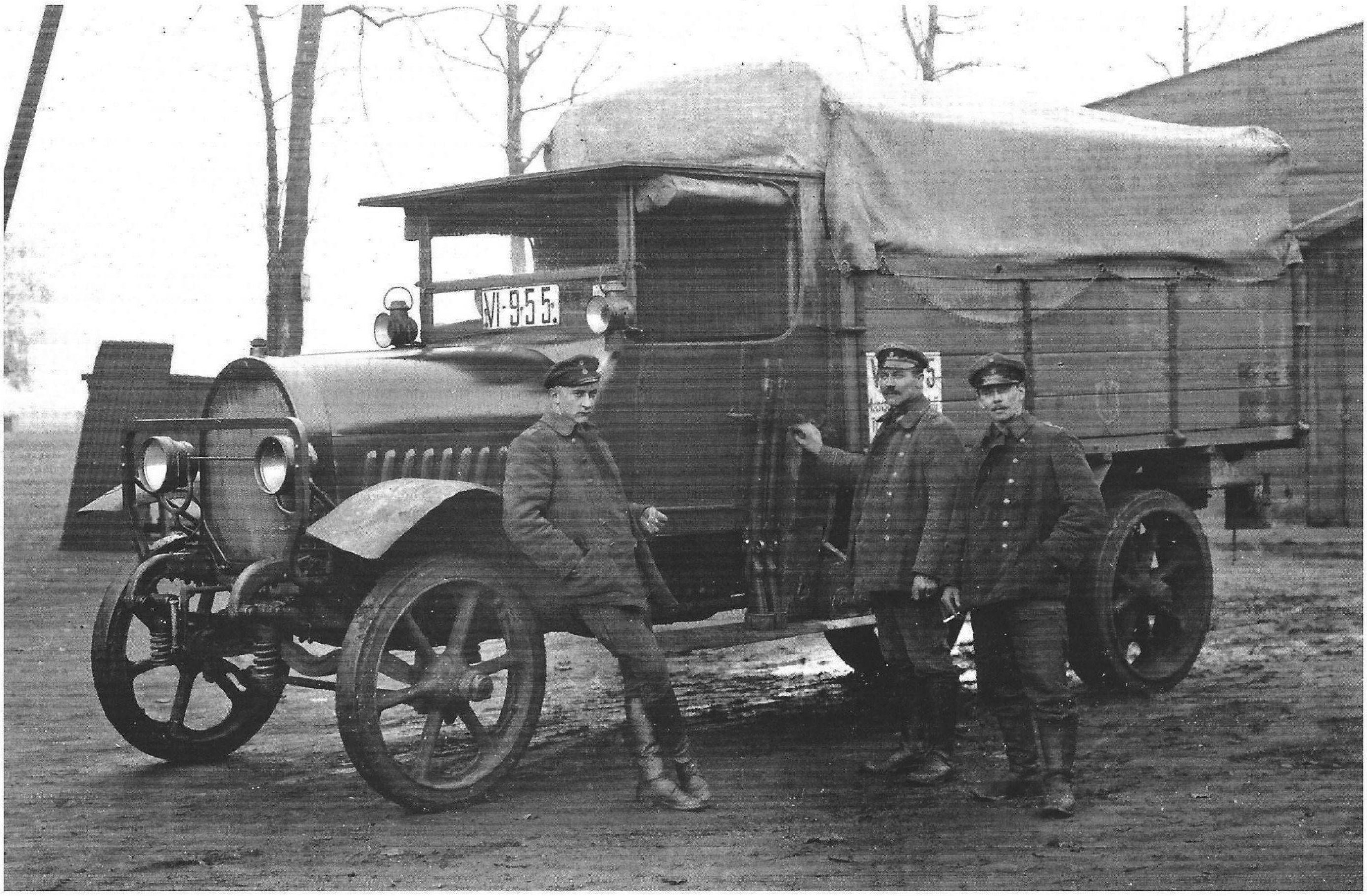
With the simplified design both for *Subventionswagen* and *Regel-Lastwagen*, the louvres on the bonnet vanished. Consequently, this is a *Lastwagen, 4 Tonnen Nutzlast, Opel Typ 24/50 PS* with a 4-ton payload and 4-cylinder 45hp 6232cc engine, sold from 1912 as a *Subventionswagen* subsidy truck, and from about 1915 as *Regel-Lastkraftwagen* with military specifications. The engine compartment markings indicate this vehicle is serving in the 4th company of *1. Radfahrer Bataillon* (bicycle battalion). A particularly interesting detail is the lettering next to the soldier's hand: It indicates a fuel tank of 125 litres is fitted, and fuel consumption of 33 litres per 100km. Note also the massive lifting jack fitted below Credit: Jochen Vollert Collection



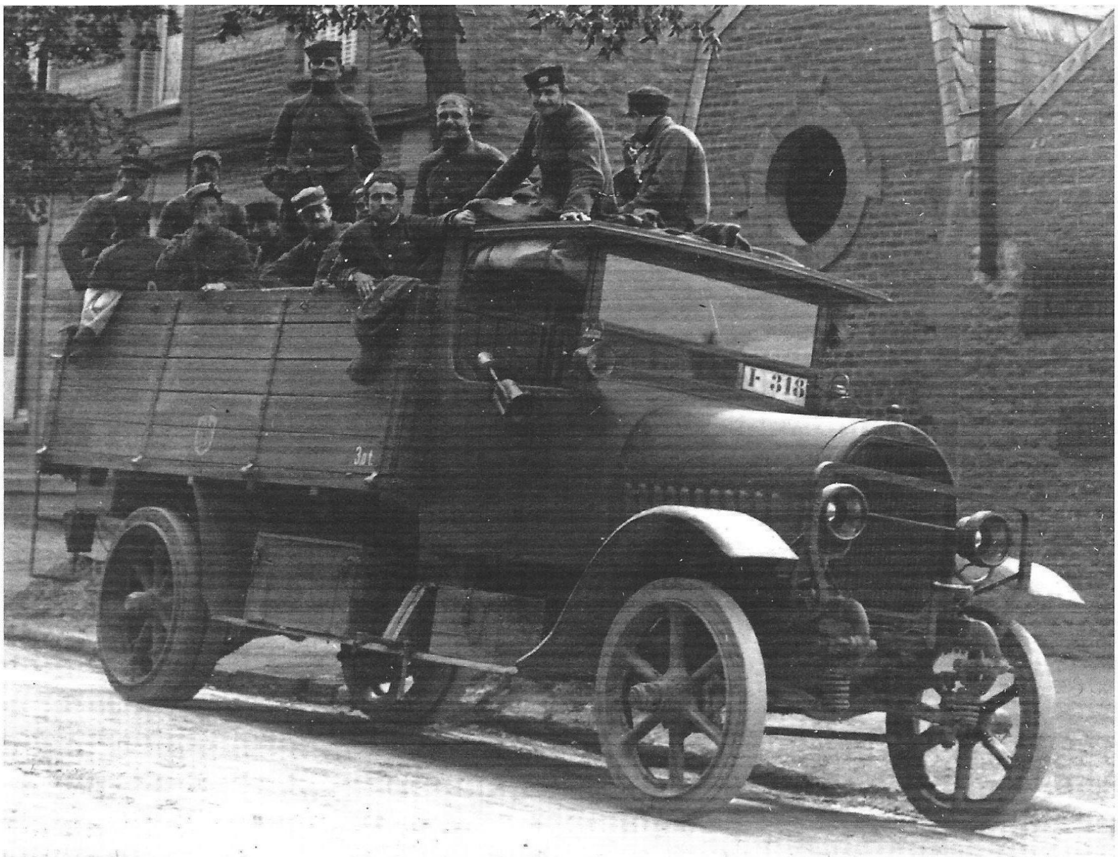
Identification of this Opel truck is barely possible, even if the marking behind the cab gives it away: Payload 2 tonnes, Load capacity 3 tonnes or 18 soldiers. Confusing markings such as this defy proper vehicle identification, as the truck could as well be a *4-Tonner*. Note the *Kriegsbedingte Notbereifung,* dating this photo to 1918.
Credit: Jochen Vollert Collection



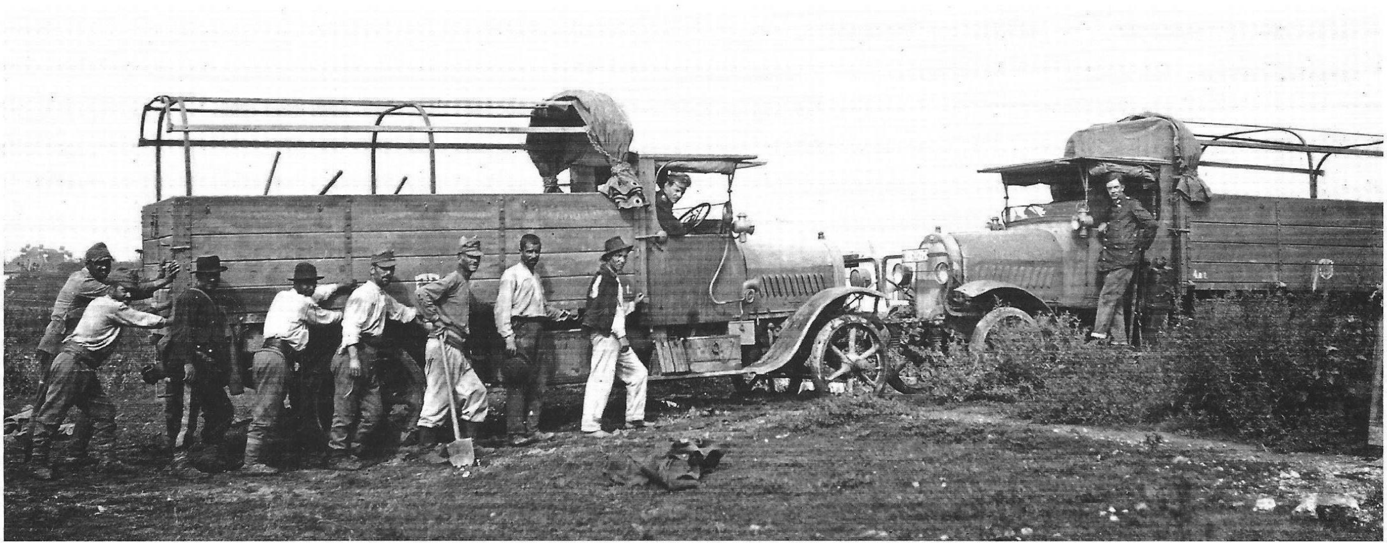
A notable detail on many later Opel trucks, as well as trucks of other manufacturers, is the additional coil spring mounted either next to the front axle or at the front and rear axles. The component was also called "helper spring" and it was to keep the leaf spring suspension in place when either steel-rimmed or wood-rimmed tyres were used, on bad roads or under full payload. If it was a very bad bump the end of the leaf-spring would normally rise and could hit and damage the chassis, or it could break when absorbing too much force. The idea was that the coil would break before the leaf as it was easier to replace the coil.
Credit: Jochen Vollert Collection

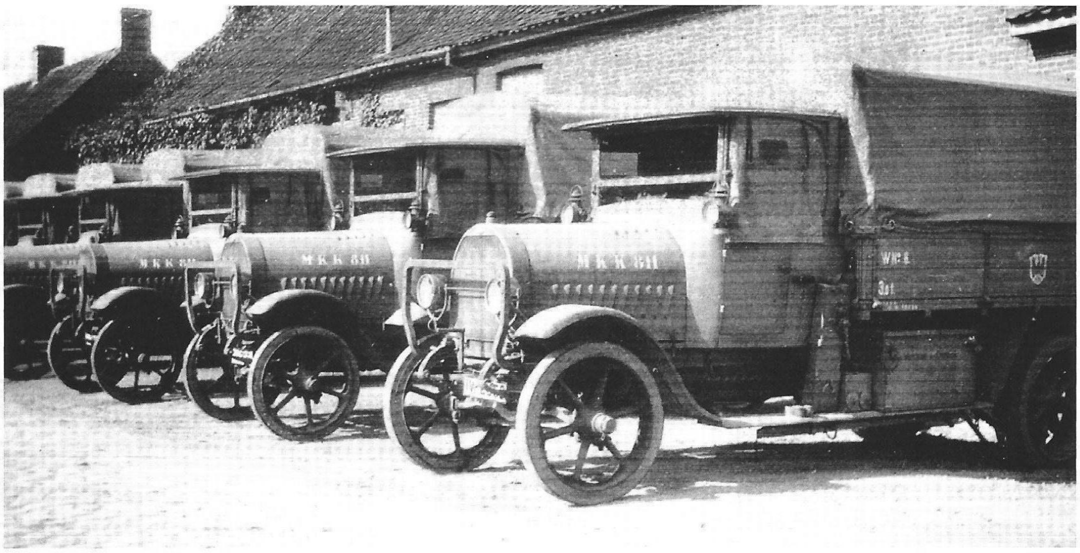


The standardised Opel military truck, built from 1914-18, was the *Regel-Lastkraftwagen, 3 bis 4 Tonnen Nutzlast, Opel Typ 40 PS* with a 3- to 4-ton payload. The military type is once more identified by the absent bonnet louvres as well as unprotected rifle holders on the left side of the closed cab next to the lifting jack. Note once more the additional coil spring to support the leaf spring suspension. The truck in this photo is serving with the 6th Army; note the licence plate in the windscreen. Credit: Jochen Vollert Collection

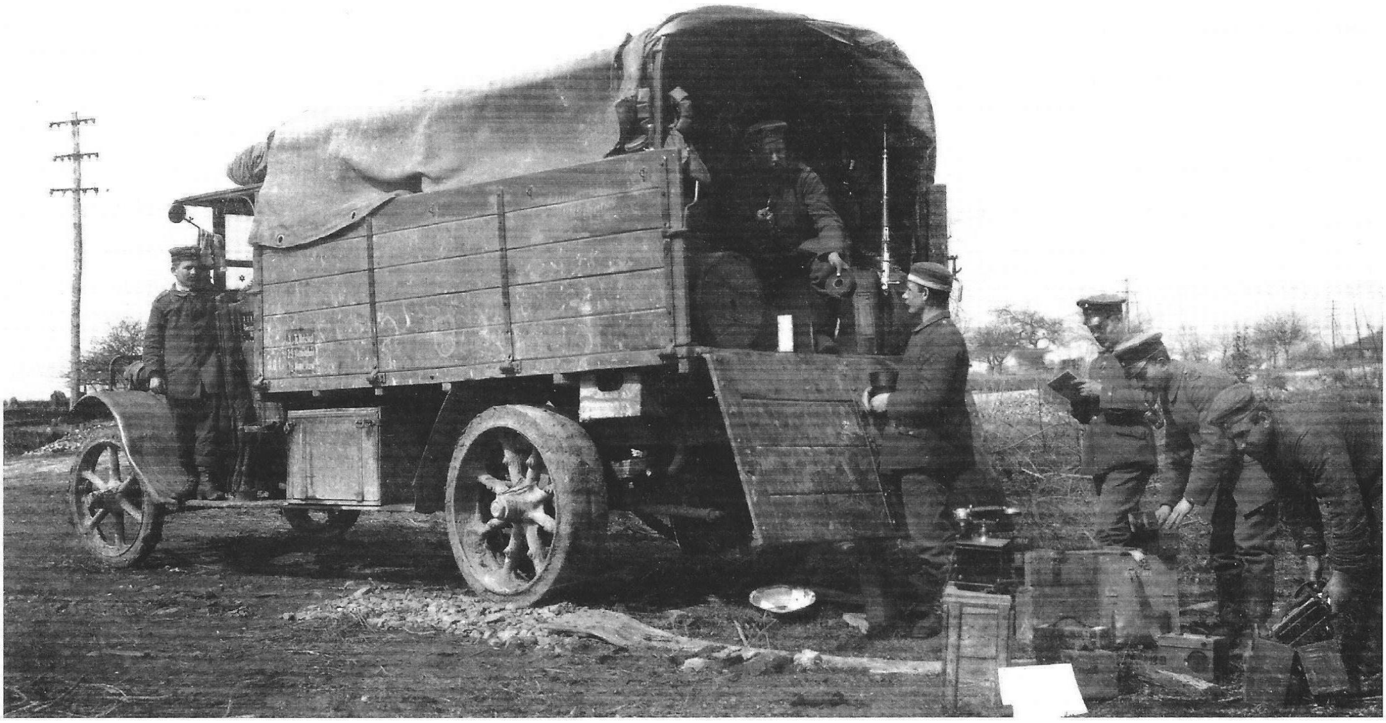


Another *Opel Regel-Lastkraftwagen, 3 bis 4 Tonnen Nutzlast, Opel Typ 40 PS*. Note the 3-ton payload marking on the right side of the cargo bay, and the coil springs under the radiator brush guard. The licence plate is that of the 1st Army. During the war, Opel built approximately 4,000 trucks, yet individual figures for types have not survived. The vast majority of these were certainly *Subventionswagen* and *Regel-Lastkraftwagen*. Credit: Jochen Vollert Collection





Three more photos of a *Opel Regel-Lastkraftwagen, 3 bis 4 Tonnen Nutzlast, Opel Typ 40 PS*, note the 3-ton and 4-ton payload markings and the Opel-typical large stowage box under the cargo bay. Of particular interest is this rare rear view, where the Opel can be identified by the headlights inside the radiator brush guard. The '*M.K.K*' marking reads *Munitions-Kraftwagen-Kolonne* a column trained for transporting ammunition. Credit: Jochen Vollert Collection



03.24 Podeus / Podeus Trucks

Paul Heinrich Podeus started his career as a trader in coal and wood before, in 1879, he entered machine building, followed in 1894 by a railway wagon building plant. In his machine building plant in Wismar he launched commercial vehicle construction from 1902 as Paul Heinrich Podeus, Maschinenfabrik. The first truck design left the workshop in 1905, soon followed by bus bodies and passenger cars. In 1910 Podeus focused on

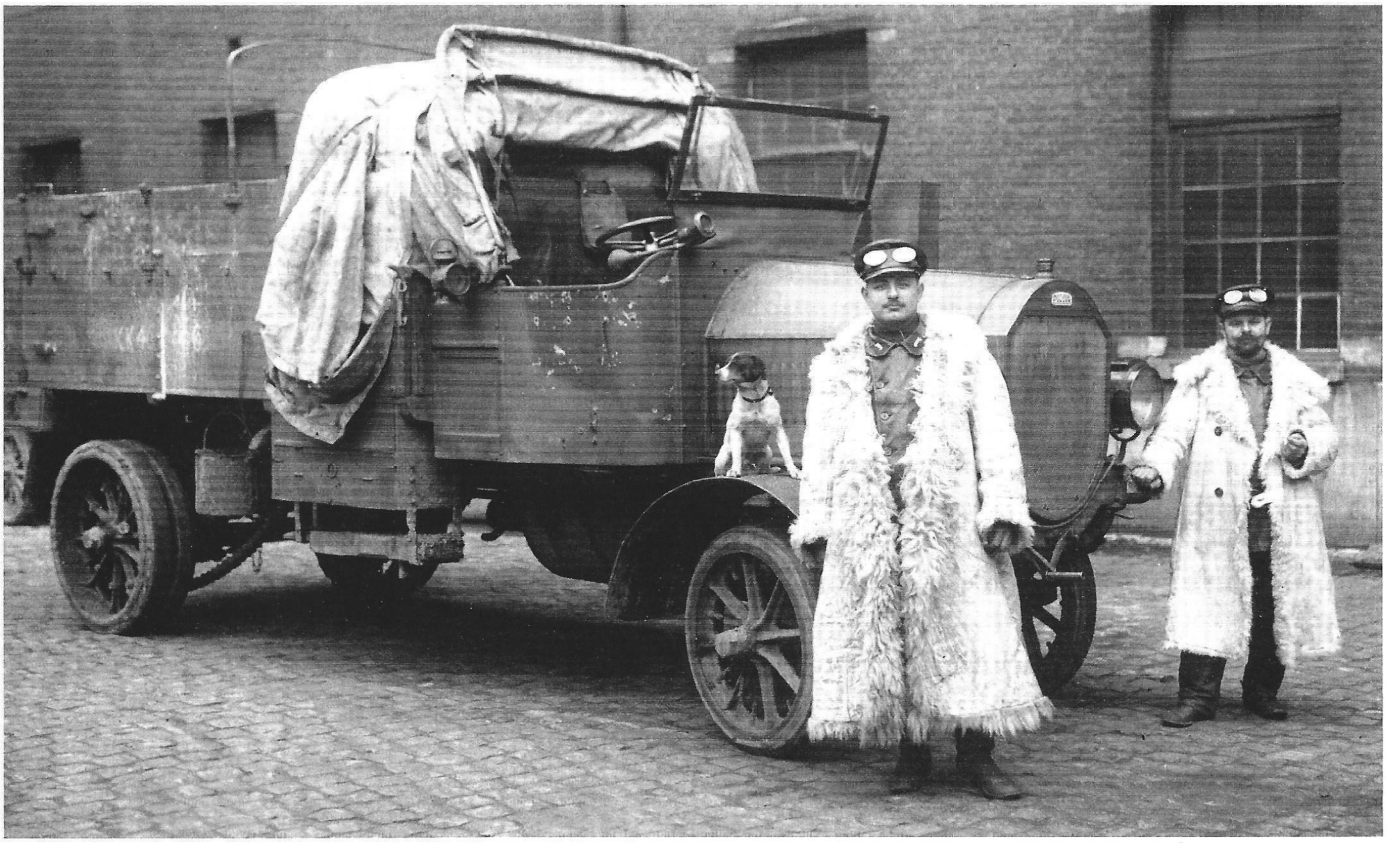
°	L III	3-ton	powered by a 4-cylinder 30hp 2536cc engine
°	L V	5-ton	powered by a 4-cylinder 35hp 5509cc engine

subsidy truck types to leverage the momentum in motor vehicle production financed by the military. Following in 1911 was a 2.5-ton light truck powered by a 4-cylinder 24hp 2248cc engine.

The truck-building endeavour was successful, and in 1912 an independent truck and passenger car production plant was built. In the same year the company was renamed Autombilfabrik Paul Heinrich Podeus, and new types left the production halls:

°	5-ton	powered by a 4-cylinder 63hp 8225cc engine
°	3-ton	powered by a 4-cylinder 45hp 5509cc engine
°	5-ton	powered by a 4-cylinder 55hp 7359cc engine

When war broke out, Podeus stopped passenger car production yet continued truck production until the end of hostilities in 1918. Despite a promising start between 1910 and 1918, Podeus built a total of only approximately 350 trucks of all types, with potentially only half of them used by the army.



Photographic proof of Podeus trucks in Imperial German Army is ultimately rare, and it underlines the weak impact this truck-maker had by its sheer absence of numbers produced. The wartime 3-ton and 5-ton models were built to then well-established *Heereswagen/Regel-Dreitonner* outlines, including double rear wheels. While the truck in this photo is still equipped with a folding soft-top roof for the cab in connection with a small windscreen, the typical army truck guise with a closed cab and radiator brush guard may have entered wartime production later on. Note the Podeus logo on the upper end of the radiator casing. Credit: Tim Gosling Collection

03.25 Stoewer / Stoewer Trucks

Gebr. Stoewer, Fabrik für Motorfahrzeuge oHG was founded in Stettin in 1900 by Bernhard Stoewer and his two sons. The family had previously been busy producing sewing machines, typewriters, bicycles and motorised tricycles – not a strange background for a company that wanted to enter the motor vehicle business in that era. Starting from the first year of its foundation, the company began building passenger cars, electric-powered vehicles and also trucks in the 3- to 4-ton payload range and powered by a 10hp engine. The next years saw a constantly expanding range of more and more powerful trucks in the 2-ton to 5-ton payload ranges, and 15hp to 48hp engines distributed over no less than 15 models. In consequence, Stoewer became one of the busiest manufacturers of truck models, similar to Daimler. In 1914, Stoewer was one of 14 truck-makers with a licence to build subsidy trucks. In 1916 Stoewer was renamed Stoewer-Werke AG.

As early as 1905, Stoewer built the first subsidy truck for the army, the

°	L 4 I	*Subventionstyp*	4- to 5-ton	powered by a 4-cylinder 30hp 5881cc engine	(45 built from 1906-08)

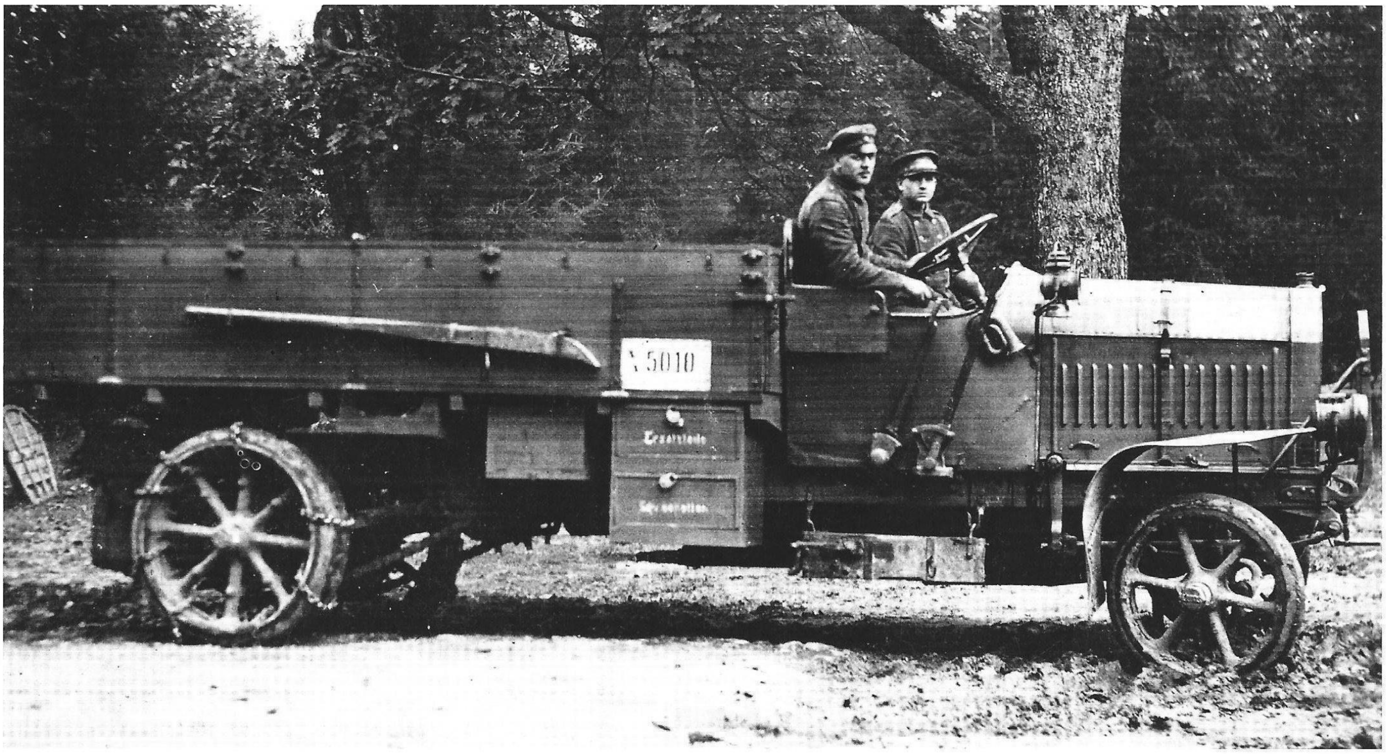
followed by two more subsidy trucks in 1909:

°	L 4 II	*Subventionstyp*	5-ton	powered by a 4-cylinder 32hp 5881cc engine	(110 built from 1909-12)
°	L 4 III	*Subventionstyp*	5-ton	powered by a 4-cylinder 48hp 7390cc engine.	(130 built from 1909-12)

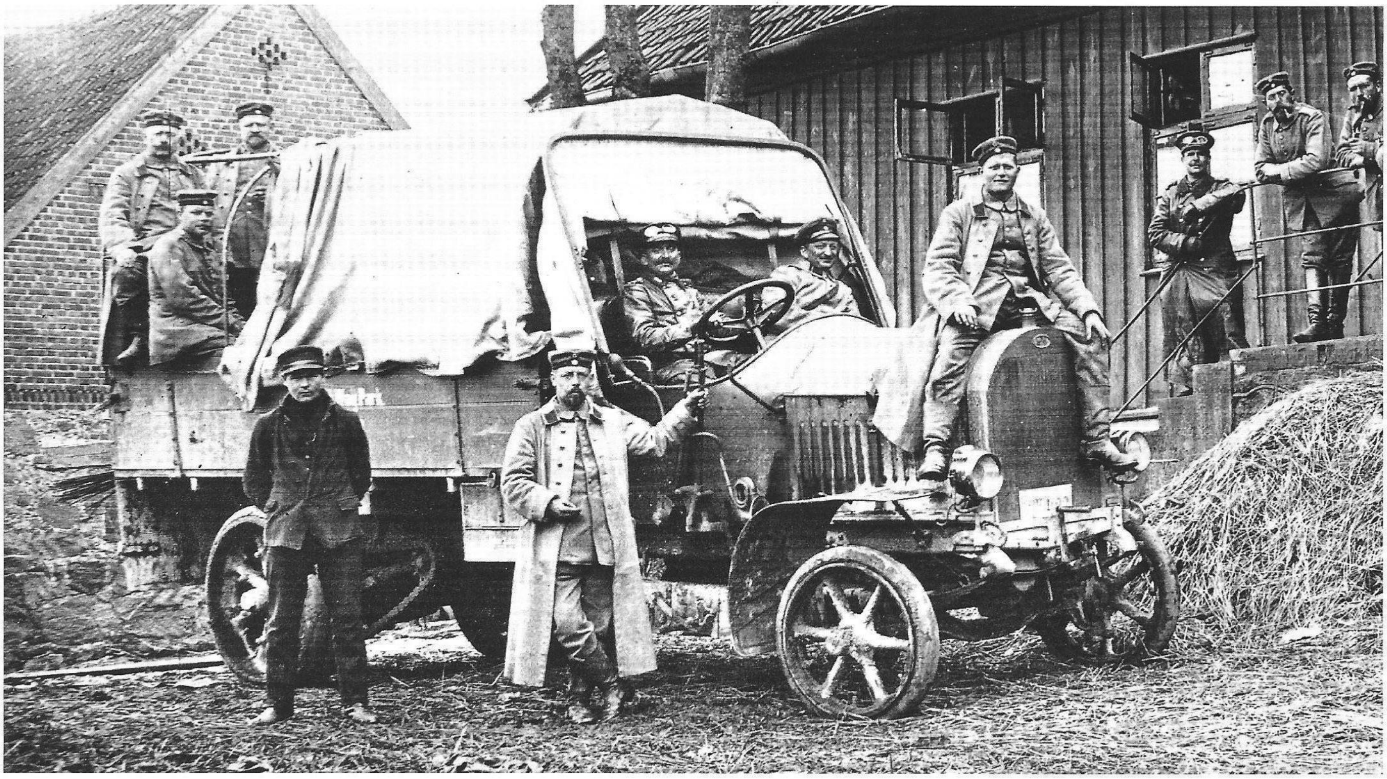
Among the busiest years were 1912-13, when no less than nine new models of trucks and buses were launched. Relevant to the war effort were the:

°	L 1	*Feldpostwagen*	1.5- to 2-ton	powered by a 4-cylinder 32hp 4940cc engine	(35 built from 1913-14)
°	L 2	*Telegrafenwagen*	2-ton	powered by a 4-cylinder 32hp 4940cc engine	
°	L 2 K	*Regel-Dreitonner*	3-ton	powered by a 4-cylinder 32hp 4940cc engine	(1,410 built from 1913-18)
°	L 5	*Subventionstyp*	5-ton	powered by a 4-cylinder 38hp 4949cc engine	(20 built in 1912)
°	L 6 S	*Subventionstyp*	4- to 5-ton	powered by a 4-cylinder 42hp 7390cc engine	(385 built from 1913-18)

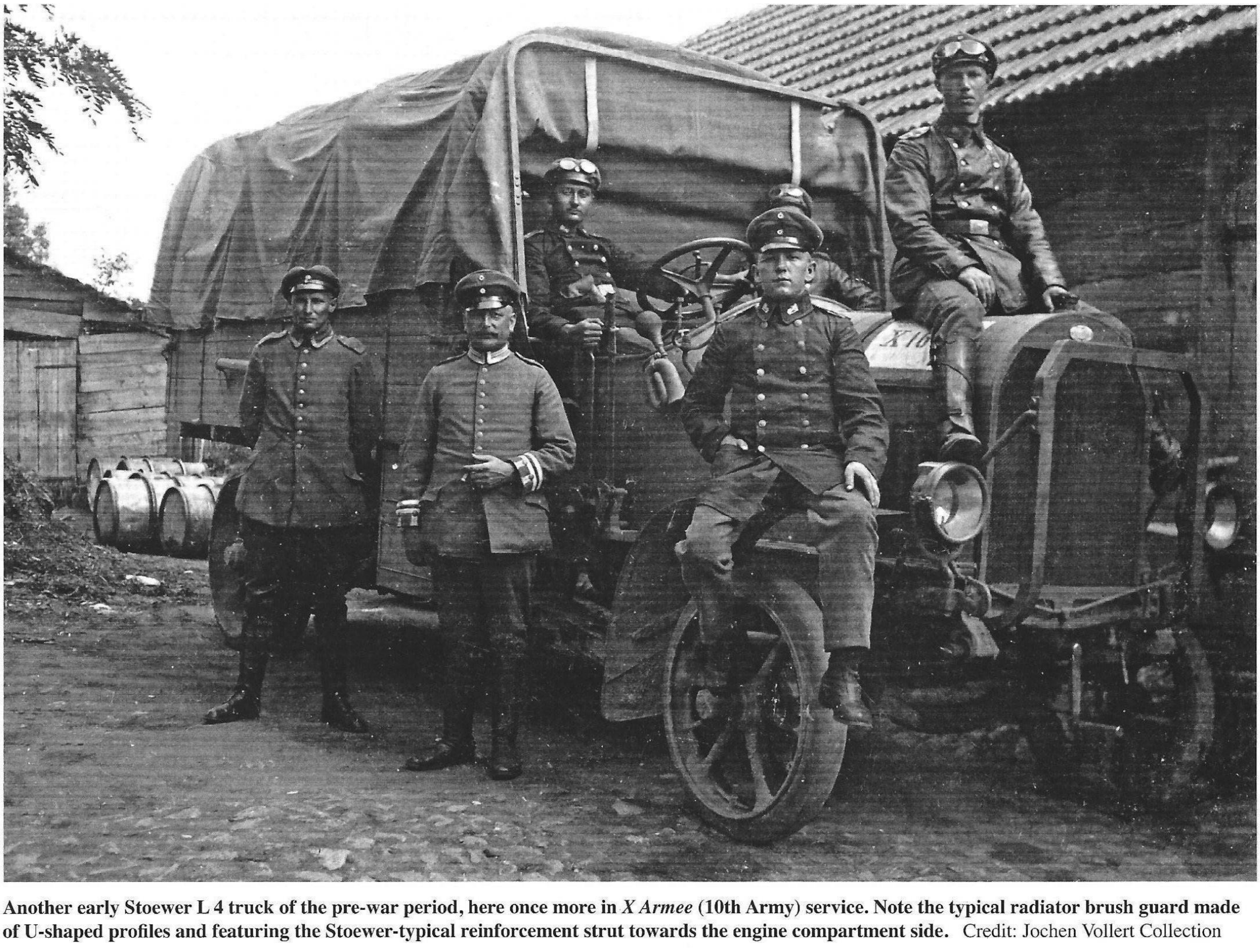
In contrast to previous subsidy army models, those built from 1912 featured a closed cab with windscreen rather than a folding soft-top, yet they were still equipped with a chain drive and acetylene headlights. During the war, Stoewer also built ambulances, field mail service trucks, staff cars and other specialised vehicles.



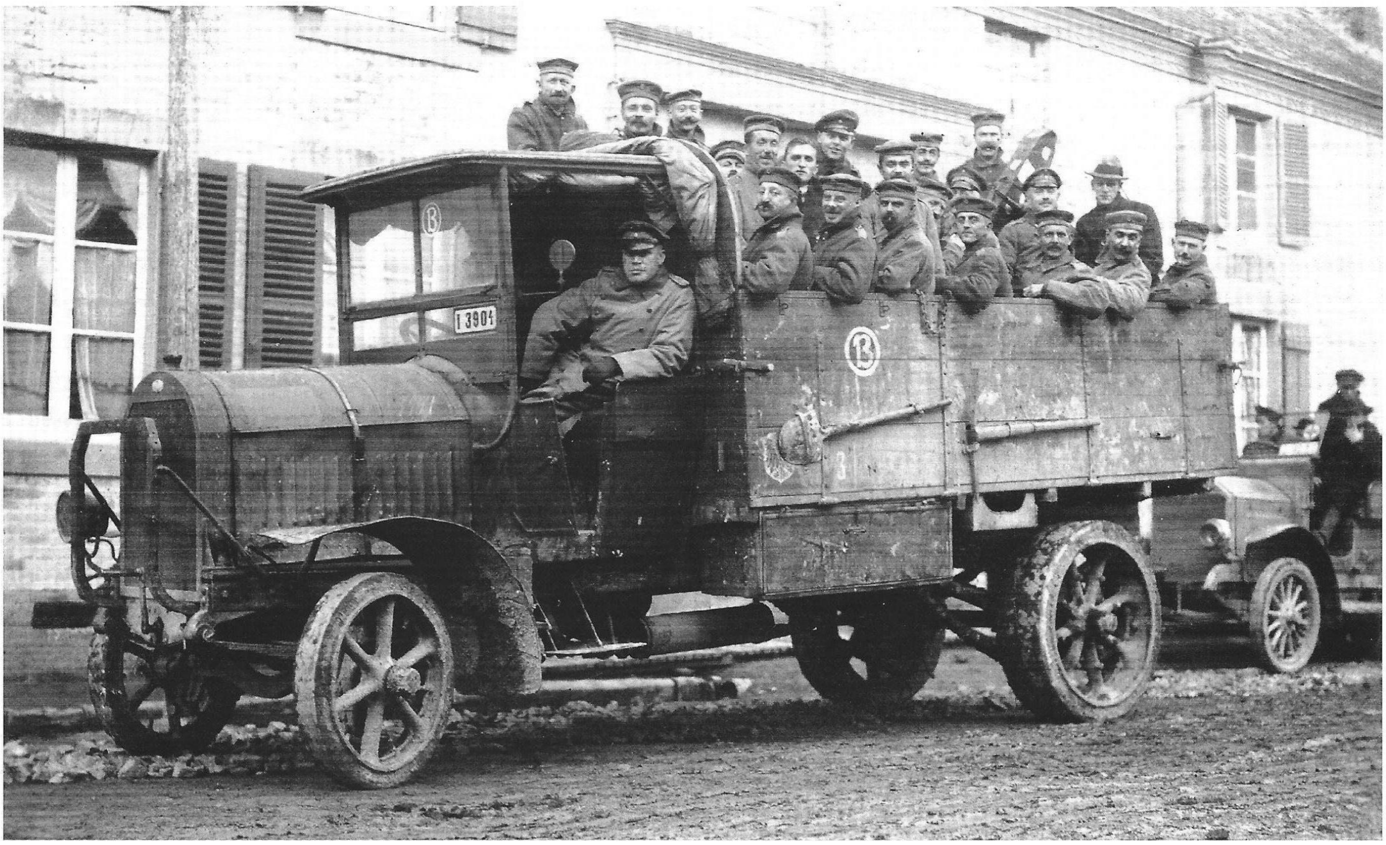
Stoewer was the company with the most army truck types officially listed in its range. They mostly differed in the payload and engine type fitted. The 1909 *Subventionstyp* subsidy 5-ton trucks still featured the soft-top cab, chain drive and externally fitted gearshift and brake levers, as are visible in this photo of a 10th Army truck taken in 1916. Credit: Jochen Vollert Collection



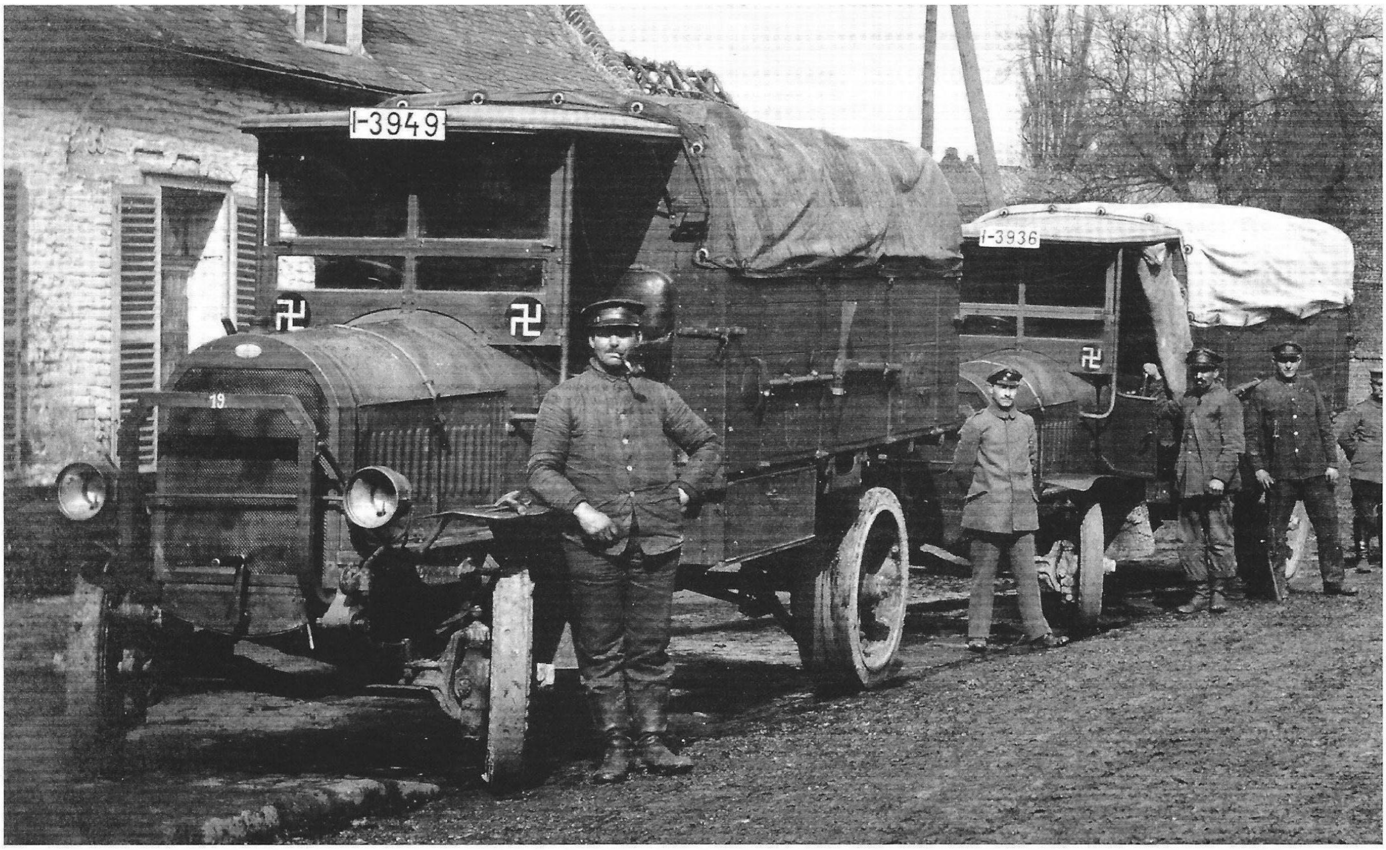
Another 1909 Stoewer L 4 II or L 4 III 5-ton truck with a soft-top cab. Note the typical oval Stoewer logo on the upper end of the radiator casing. Most of the *Subventionstyp* subsidy trucks already featured the radiator brush guard, but this 8th Army example does not.
Credit: Jochen Vollert Collection



Another early Stoewer L 4 truck of the pre-war period, here once more in *X Armee* (10th Army) service. Note the typical radiator brush guard made of U-shaped profiles and featuring the Stoewer-typical reinforcement strut towards the engine compartment side. Credit: Jochen Vollert Collection

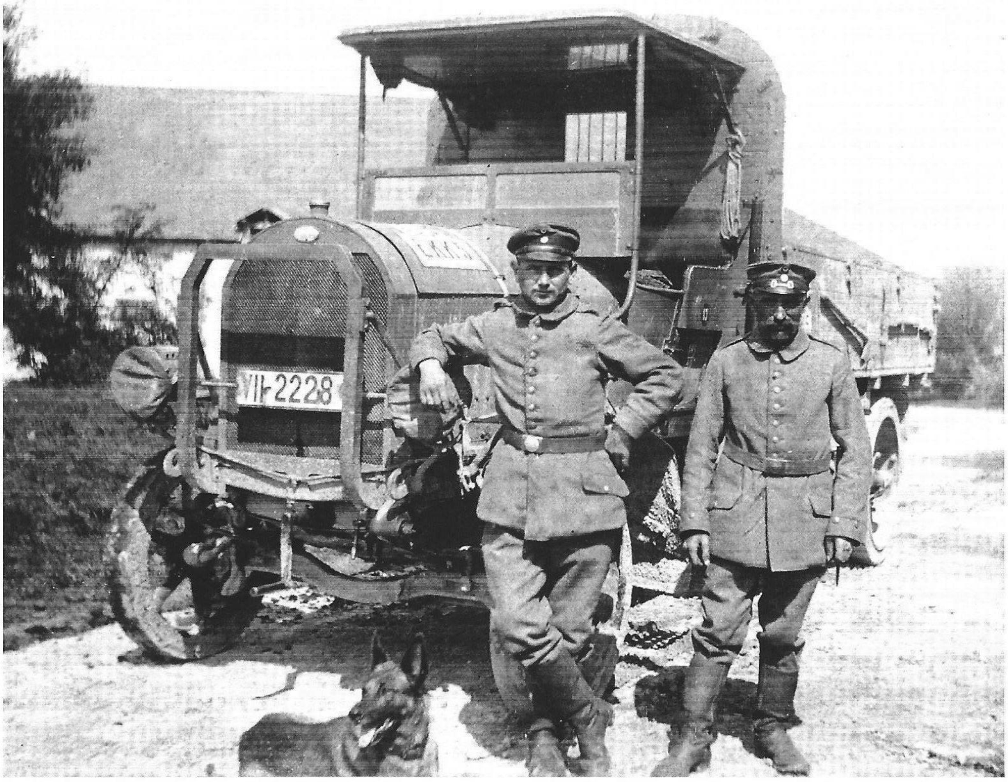


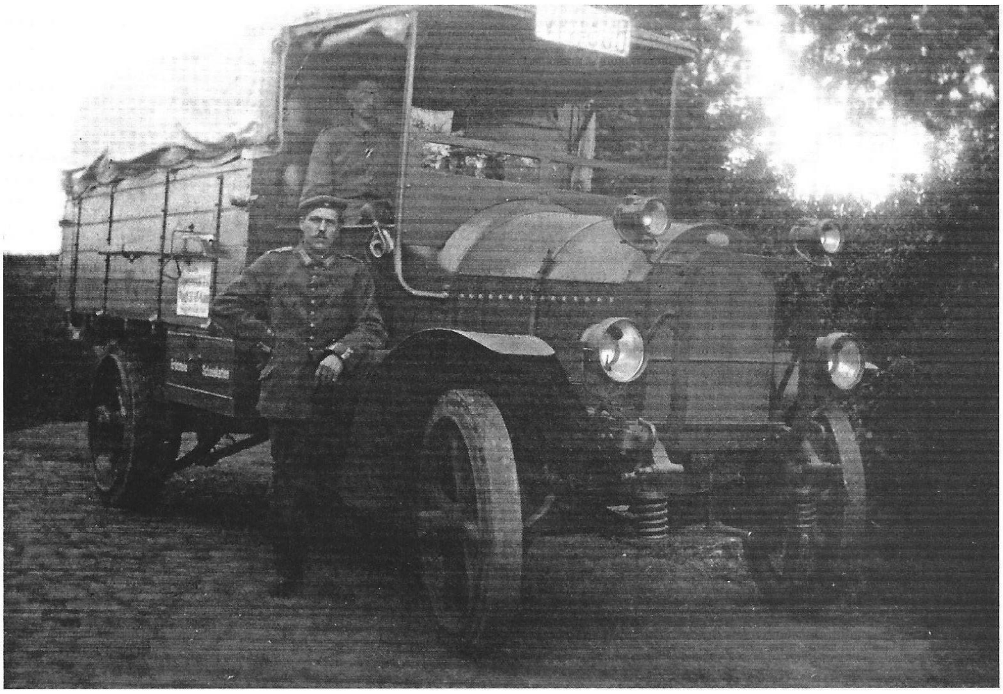
A typical Stoewer *Heereswagen*, presumably an L 2 K *Regel-Dreitonner* 3-ton model, once more with the typical military-grade closed cab introduced during the war and the typical Stoewer brush guard. This is a 1st Army truck, yet the '*B*' marking on the engine compartment side cannot be identified. This truck is fitted with steel spoked wheels on both axles: six spokes on the front and eight spokes on the rear. The photo is dated November 1917. Credit: Jochen Vollert Collection



These two Stoewer *Heereswagen* trucks, both in 1st Army service, boast unusual personal graffiti rather than unit markings. The "sun wheels" are inverted swastikas that are by no means linked to the Nazis, but which represent an old Nordic symbol. Note the small *Wagennummer* '19' on the radiator brush guard. The photo is dated 1917. Credit: Jochen Vollert Collection

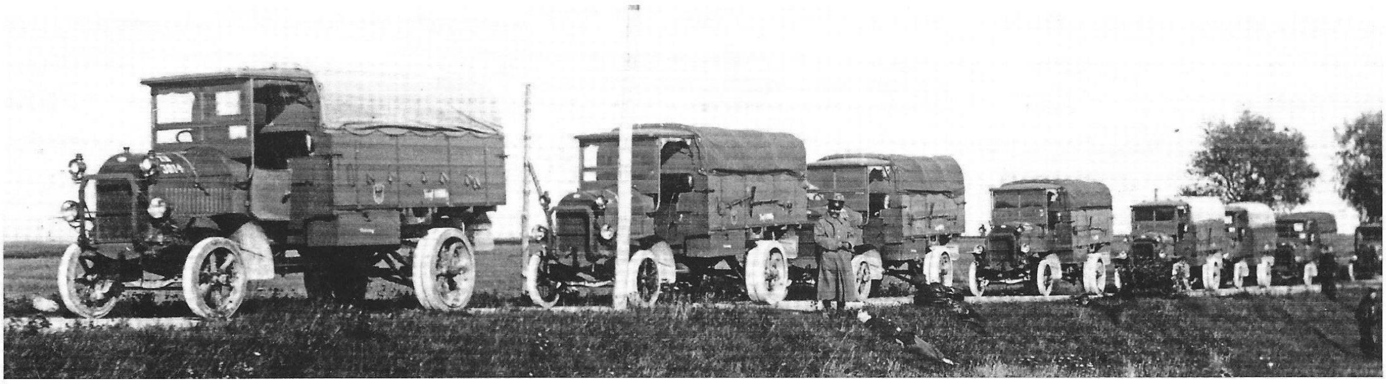
This front view of a *VII Armee* truck reveals more details of early Stoewer radiator and the Stoewer-typical brush guard with the reinforcement strut towards the rear. Note also that the upper part of the windscreen folds to the inside rather than to the outside. The marking on the bonnet denotes *Etappen-Kraftwagen-Kolonne 5*.
Credit: Jochen Vollert Collection

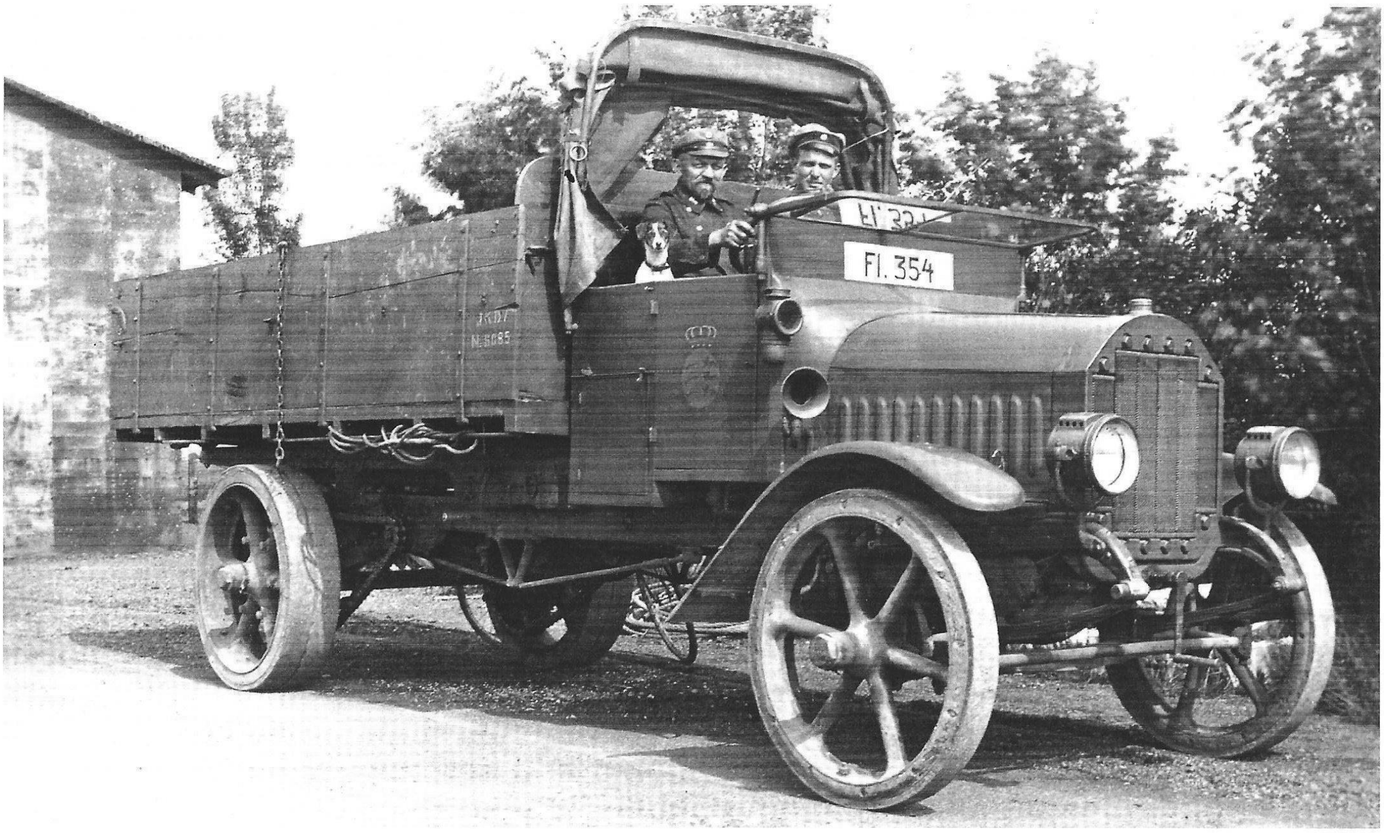




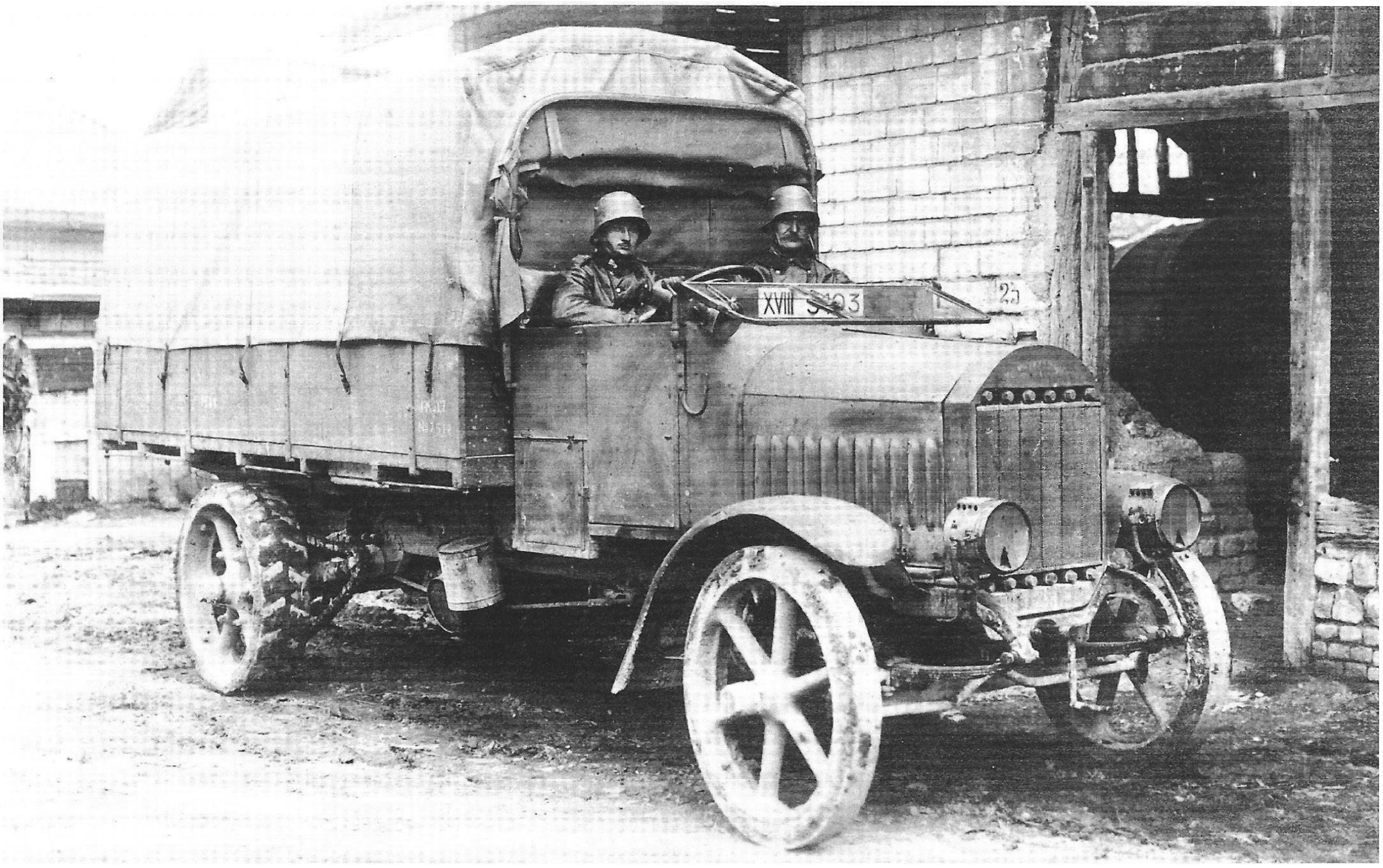
Albeit of rather poor quality, this 6th Army Stoewer *Heereswagen* is interesting in that it features four headlights on the radiator, and additional coil springs to support the front axle leaf spring suspension. The photo is dated June 1917.
Credit: Jochen Vollert Collection

The four-headlight arrangement seems to have been used frequently, and here is a column with no less than seven of these Stoewer trucks.
Credit: Jochen Vollert Collection





As with Benz and Daimler, Stoewer introduced a bolted radiator type towards the end of the war to ease dismantling and repair of this component. Notably this 18th Army L 2 K truck does not feature the radiator brush guard yet a soft-top cab with a windscreen folding forward. The rare crest is that of the *Württembergische Armee*. The unit marking '*Fl.*' leaves several options. Credit: Steve St. Schmidt Collection via Henry Hoppe



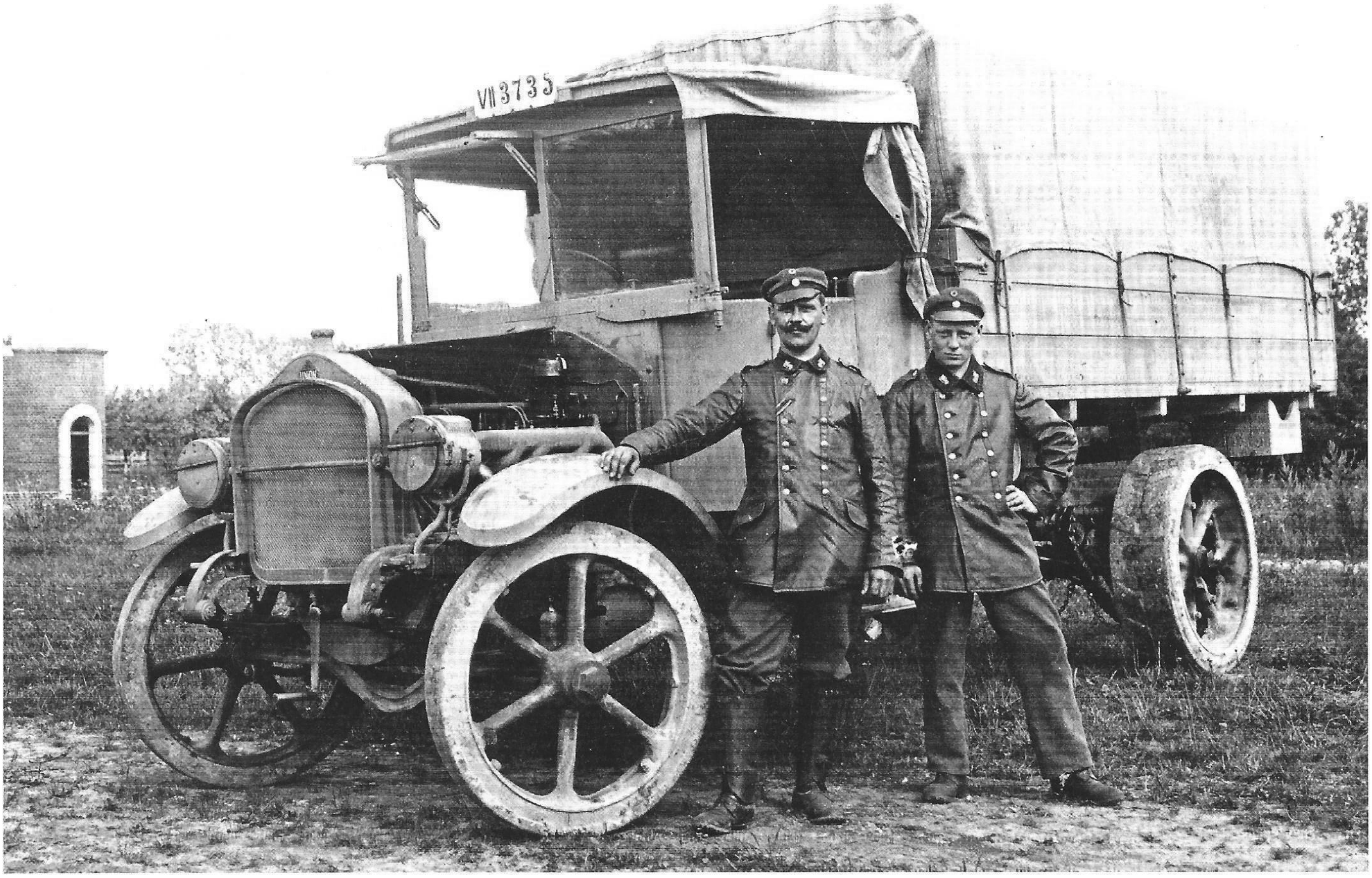
This is a Stoewer L 6 S *Heereswagen* with the type of bolted radiator that was used on this variant with the bigger engine compartment. Again, no radiator brush guard was fitted, and both trucks feature the odd combination of a foldable soft-top roof and windscreen. Note also the absence of the Stoewer logo on the new radiator's front. Also interesting are the two triangular apertures in the headlights, acting as a blackout device. Once more this is an 18th Army vehicle. With later wartime production, Stoewer returned to using a chain drive for the rear axle. Credit: Jochen Vollert Collection

03.26 Union / Union Trucks

One of the most mythical manufacturers of trucks in the era before 1918 is Union-Werke AG from Mannheim (not to be confused with Automobil-Werke Union AG). Most other German truck manufacturers of the pre-1918 period launched their production in the decade before the Great War. Based on experiences in the commercial market, they then adapted their civilian designs for the military user.
Conversely, Union-Werke AG was launched in 1914 for the sole purpose of producing trucks for the military, based on the *Heeresmodell* and *Regel-Dreitonner* outlines. Union built just one truck type:

° 4.5-ton powered by a 4-cylinder 40-to 50hp 7008cc engine (built from 1914)

No production figures of this vehicle have survived.



By design, the Union 4.5-ton truck followed the basic military outlines of that era, with a chain drive, dual rear tyres, cargo bed and closed cab. The manufacturer's logo can be identified on the top of the radiator casing. A particularly interesting detail is the blackout covers on the two headlights for convoy duty at night. This truck served with the 7th Army, as shown by the licence plate fitted above the windscreen.
Credit: Jochen Vollert Collection

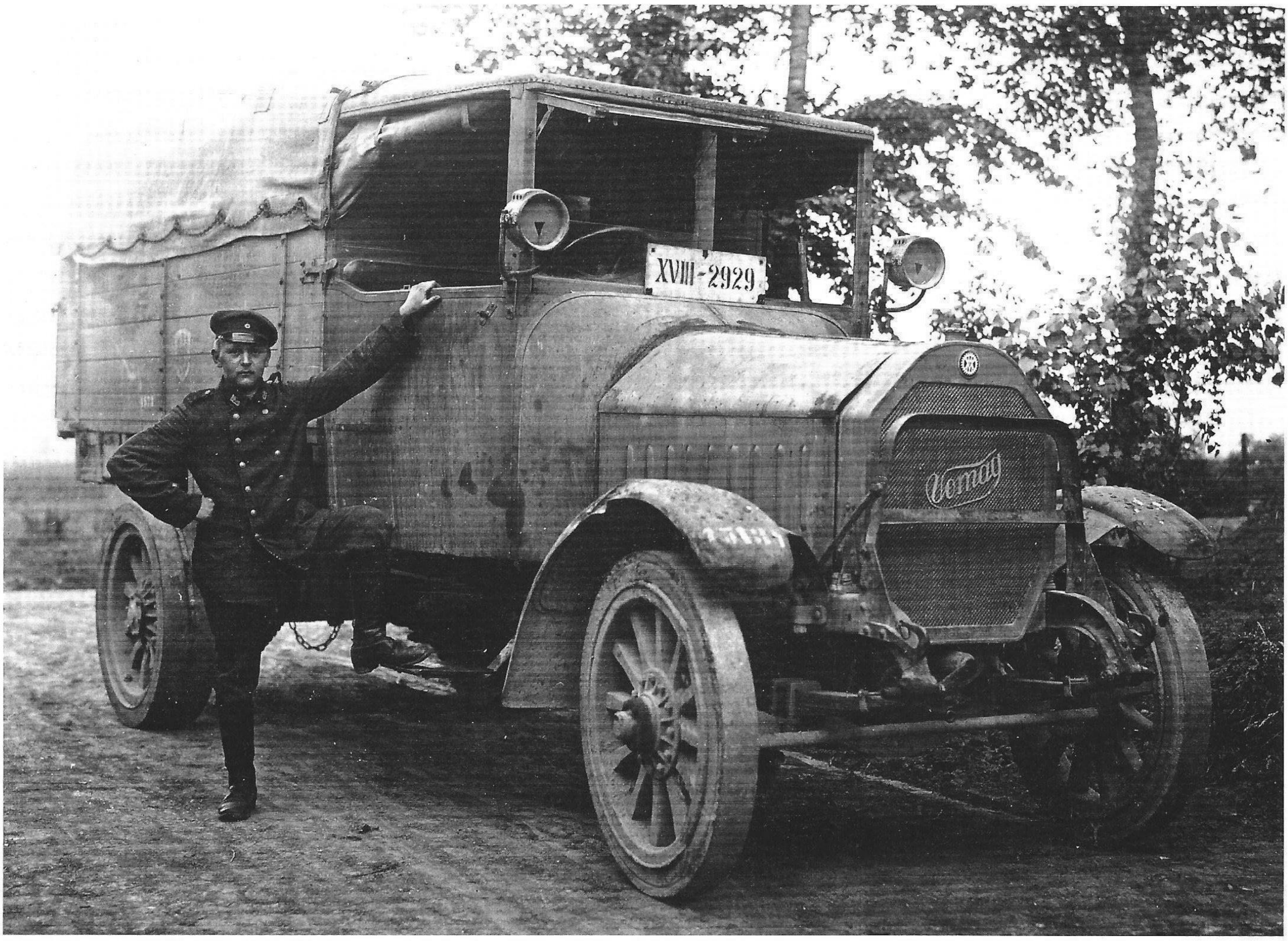
03.27 𝔙𝔬𝔪𝔞𝔤 / Vomag Trucks

Most German truck manufacturers of the pre-1918 period launched their production in the decade before the Great War. Based on experiences in the commercial market, they then adapted their civilian designs for the military user, yet often to a very limited degree only. With Vomag, short for Vogtländische Maschinenfabrik AG, from the city of Plauen, the story was a different one. Since its founding in 1891, Vomag had been exclusively building machines for textile production.
Only after the Great War had started did the company decide to participate in profitable military orders, and so it launched its truck line. In consequence, Vomag built only two types of trucks and for the military only. Yet lacking any pre-war motor vehicle production experience in 1915, they more or less copied the commercial-inspired types of other makes based on the *Regel-Dreitonner* and *Heeresmodell* outlines, rather than developing a true tactical truck (e.g. with off-road capabilities).

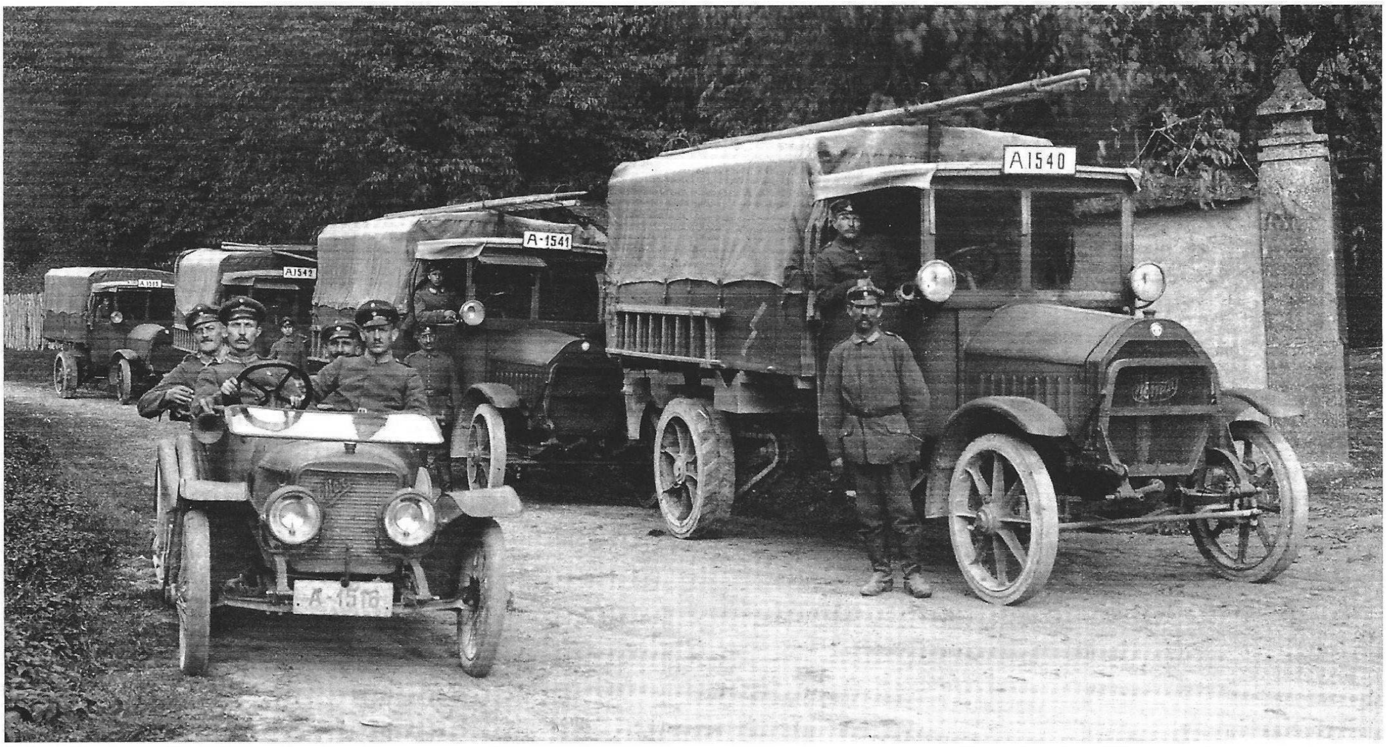
The two Vomag truck types delivered from July 1916 (when the first 30 were handed to the army) were

°	3.5-ton	powered by a 4-cylinder 35hp 5538cc engine
°	4.5-ton	powered by a 4-cylinder 60hp 8831cc engine

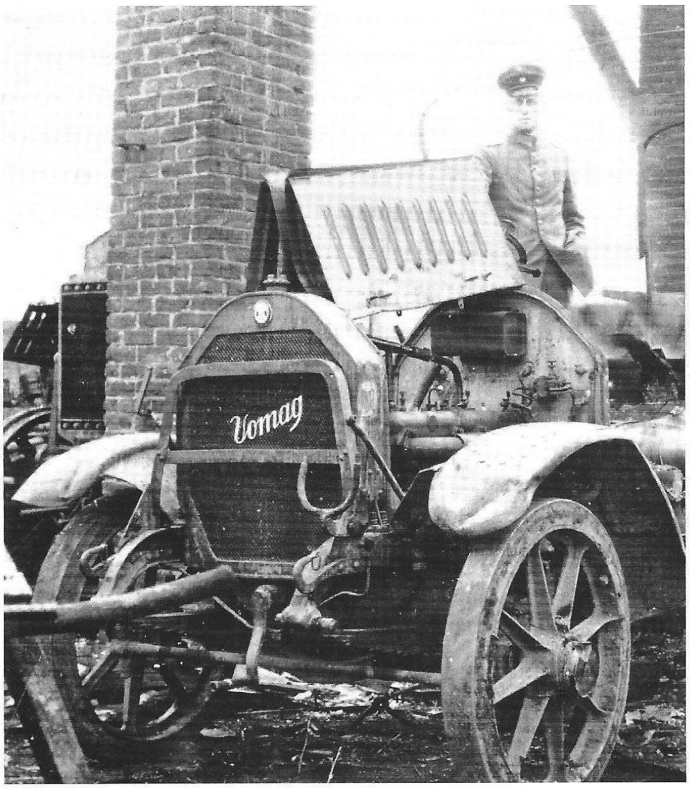
Sources claim more than 1,000 trucks were delivered, the bulk of these to the Bavarian Army. Despite this figure, Vomag trucks remain some of the most scarcely photographed trucks of the Imperial Army.

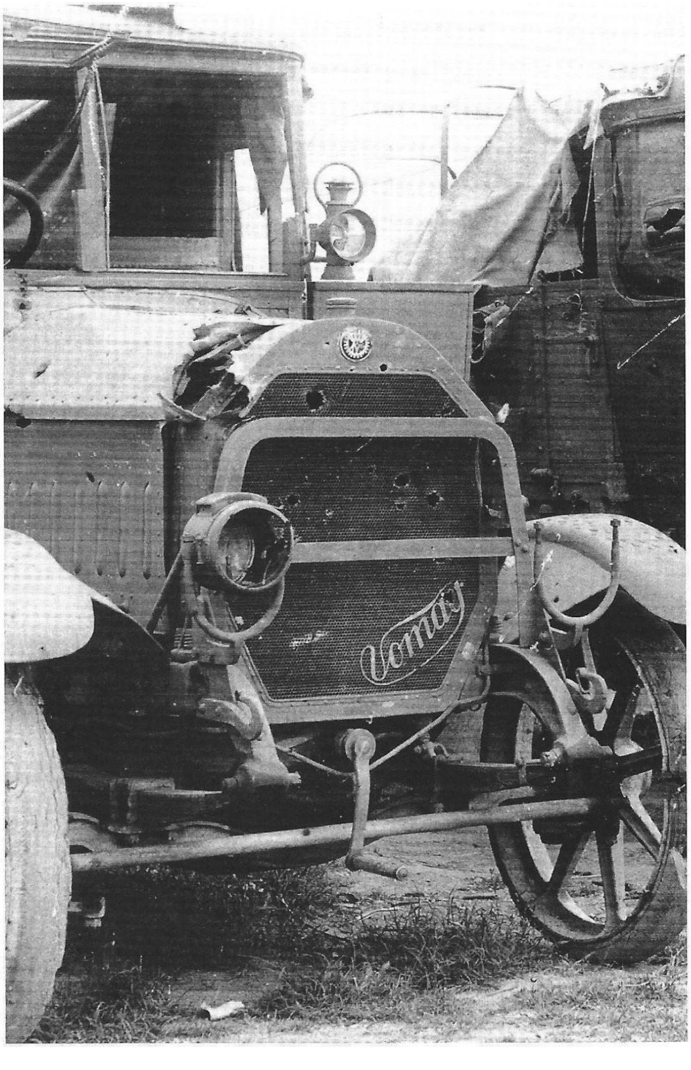


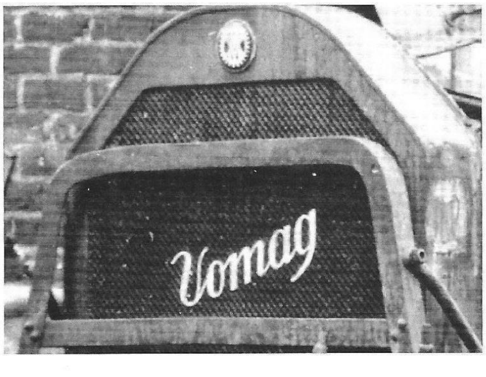
Externally, the two Vomag *Heereswagen* trucks, with 3.5-ton and 4.5-ton payloads respectively, did not differ. Both were based on the standard truck design of that period, with a chain drive, dual rear tyres, cargo bed and closed cab. The manufacturer's lettering can be identified on the front of the octagonal radiator, and the Vomag logo on top of the radiator casing. Note that the upper two of the original four headlights are of a modernised type and have received blackout covers, leaving only small triangular openings. Also note that the radiator guard is made of L-shaped profiles open to the front while it was normally open to the back. This truck is equipped with wooden wheels and served with the 18th Army; observe the licence plate fitted on the windscreen. Credit: Jochen Vollert Collection



An *Armee-Abteilung A Kraftwagenkolonne* truck column with four Vomag 3.5- to 4.5-ton trucks. Note the anti-slip covers on the rear tyres. The staff car is an Adler. Credit: Jochen Vollert Collection



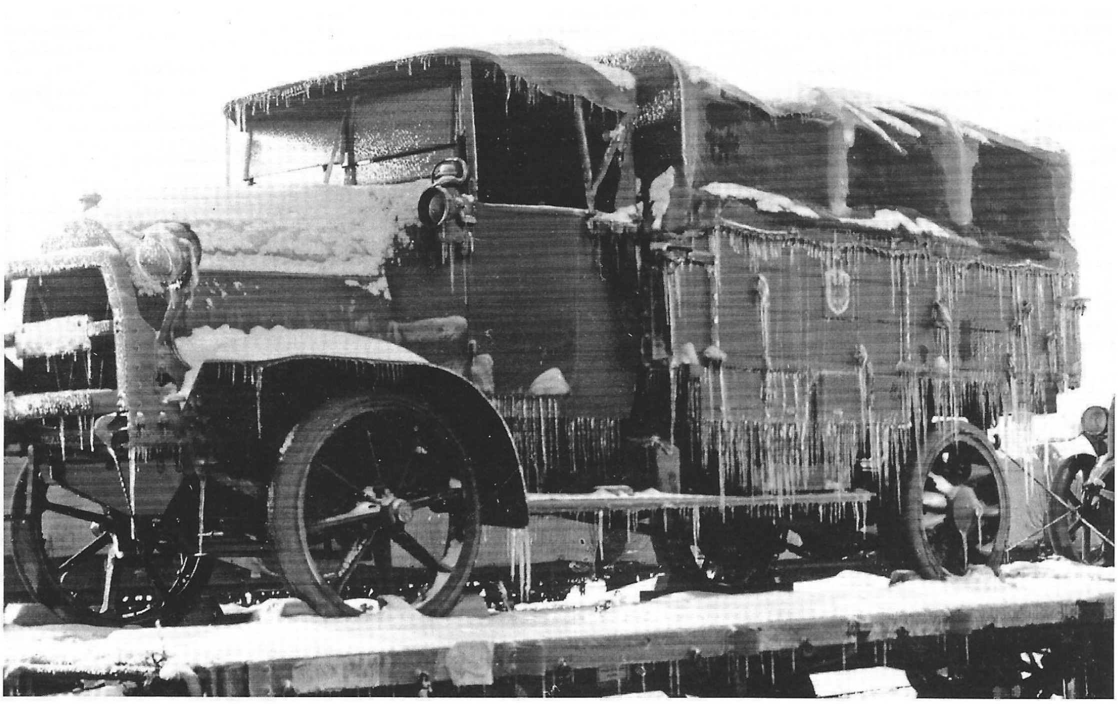




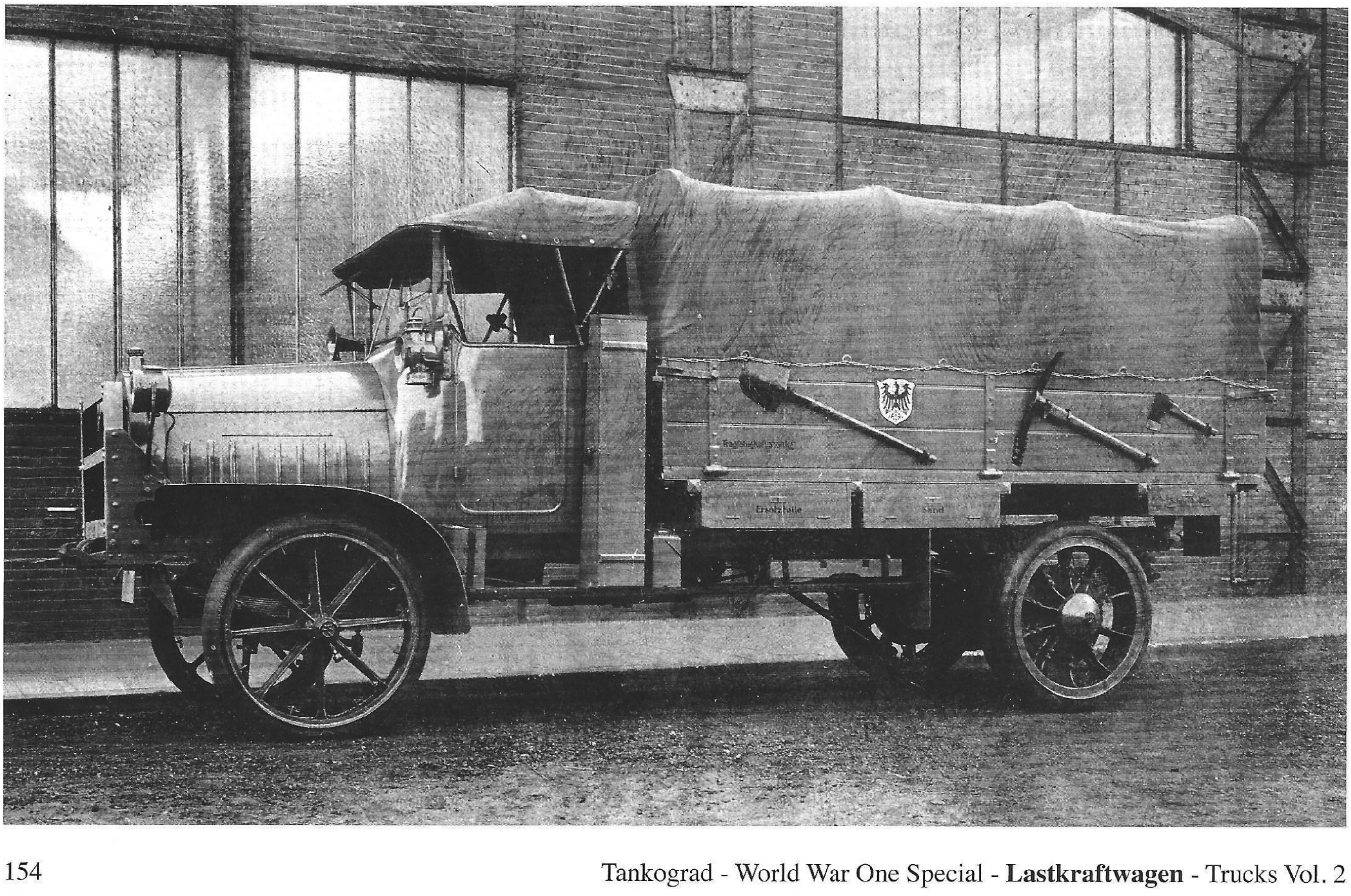
These close-ups of damaged Vomag trucks allow a closer look at the company lettering and logo, as well as a rare glimpse of the engine. Note also the rubber-rimmed cast steel tyres. Credit: Jochen Vollert Collection

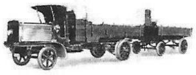
03.28 Windhoff / Windhoff Trucks

One of the least-known German truck manufacturers is Motoren- und Fahrzeugfabrik Windhoff & Co, which was founded in 1904 in Rheine. From that year it produced engines, gearboxes, rear axles, steering components and radiators for other automobile manufacturers. From 1908, Windhoff began to sell its own passenger cars, notably with 6-cylinder engines when almost all other competitors stuck with 4-cylinder versions. With the outbreak of World War One, Windhoff stopped passenger car production to continue building automotive components.
A hitherto unknown fact is that Windhoff also built a 3-ton *Heereswagen* to army specifications. The type was introduced yet the quantity produced has not survived, so it must have been very limited.



These are the only two known photos of the wartime Windhoff *Heereswagen*. The design was built to army specifications, including external equipment mounts and a carbine box. The use of a foldable soft-top rather than a closed cab points towards the early war years. The type can be identified by a 'W' on the radiator front, and the "stepped pyramid" radiator brush guard. Note the typical Windhoff tyre design including the huge hubcap on the rear axle.
Credit: Jochen Vollert Collection

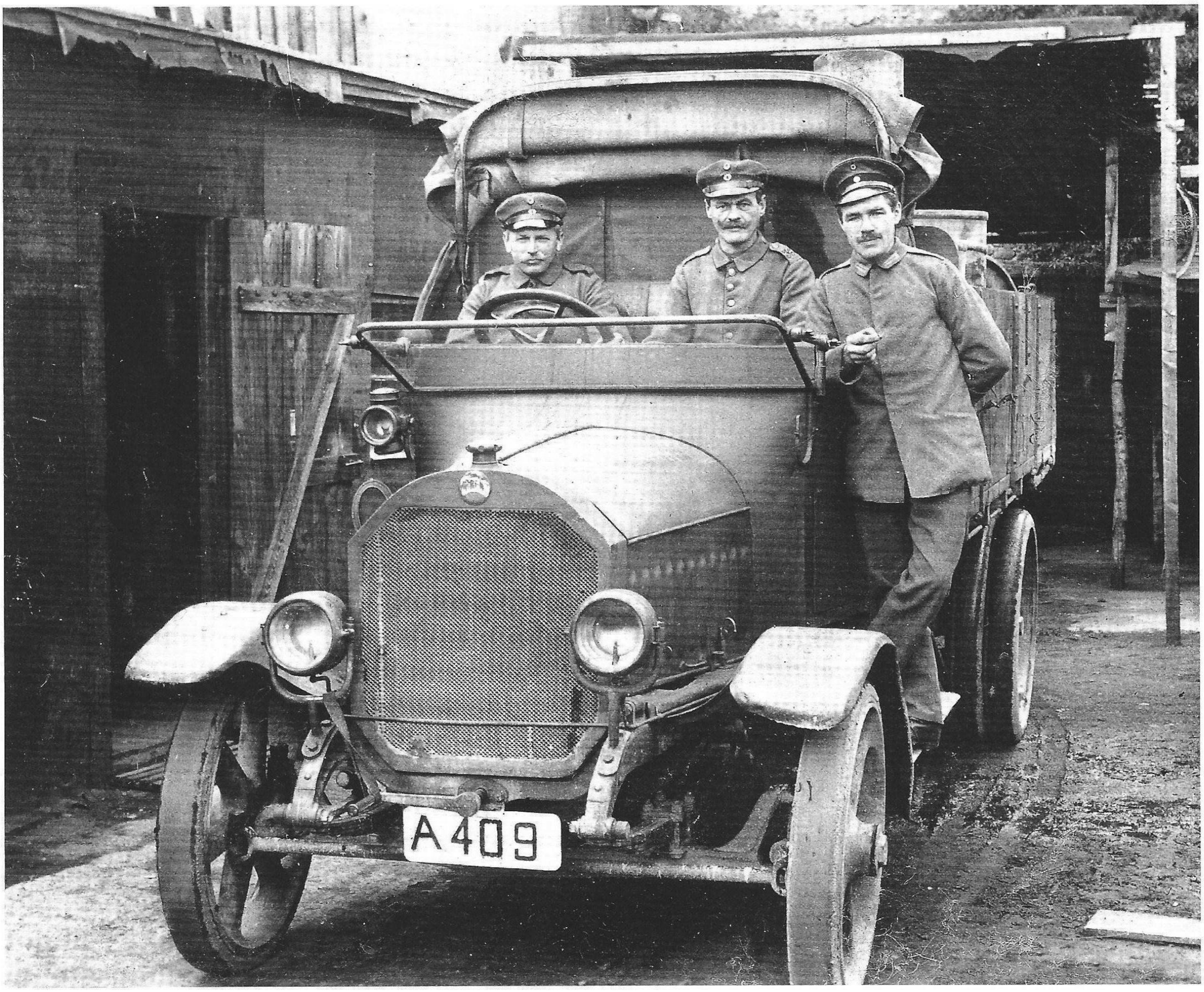




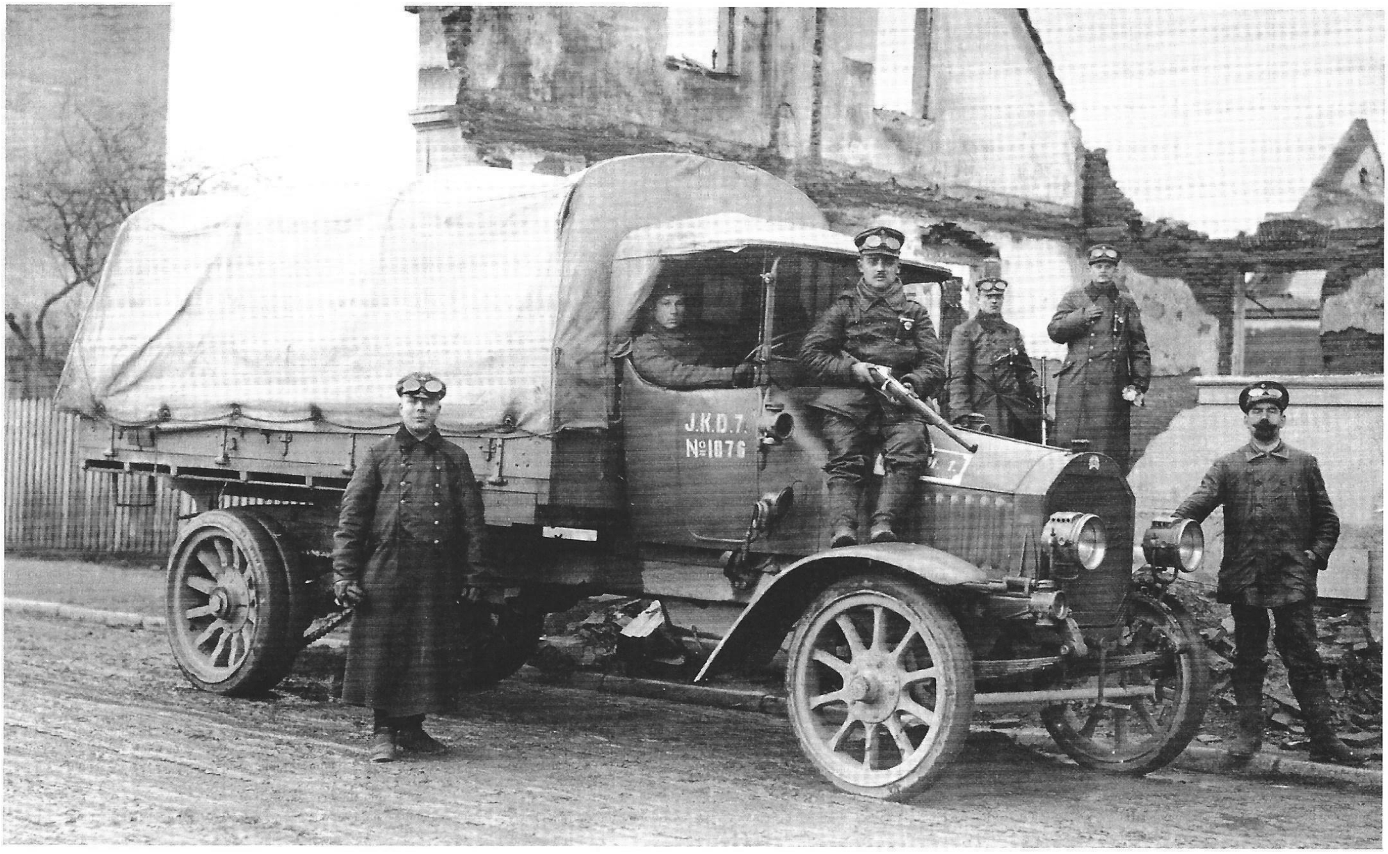
04. Ausländische Fabrikate / Trucks of Foreign Make

While the use of captured or impressed foreign truck makes in World War Two was not only carried out on a frequent basis, it became vitally crucial for the German war effort after the invasion of the Soviet Union in 1941. In World War One, on the other hand, impressed foreign makes were a rare sight, and captured enemy vehicles were even scarcer.
As early as September 1914 German Army units received orders to confiscate suitable vehicles in the occupied regions of France and Belgium and to add them to German units' motor pools. This chapter will describe these Beute types of foreign motor vehicles that were "obtained" in four ways:

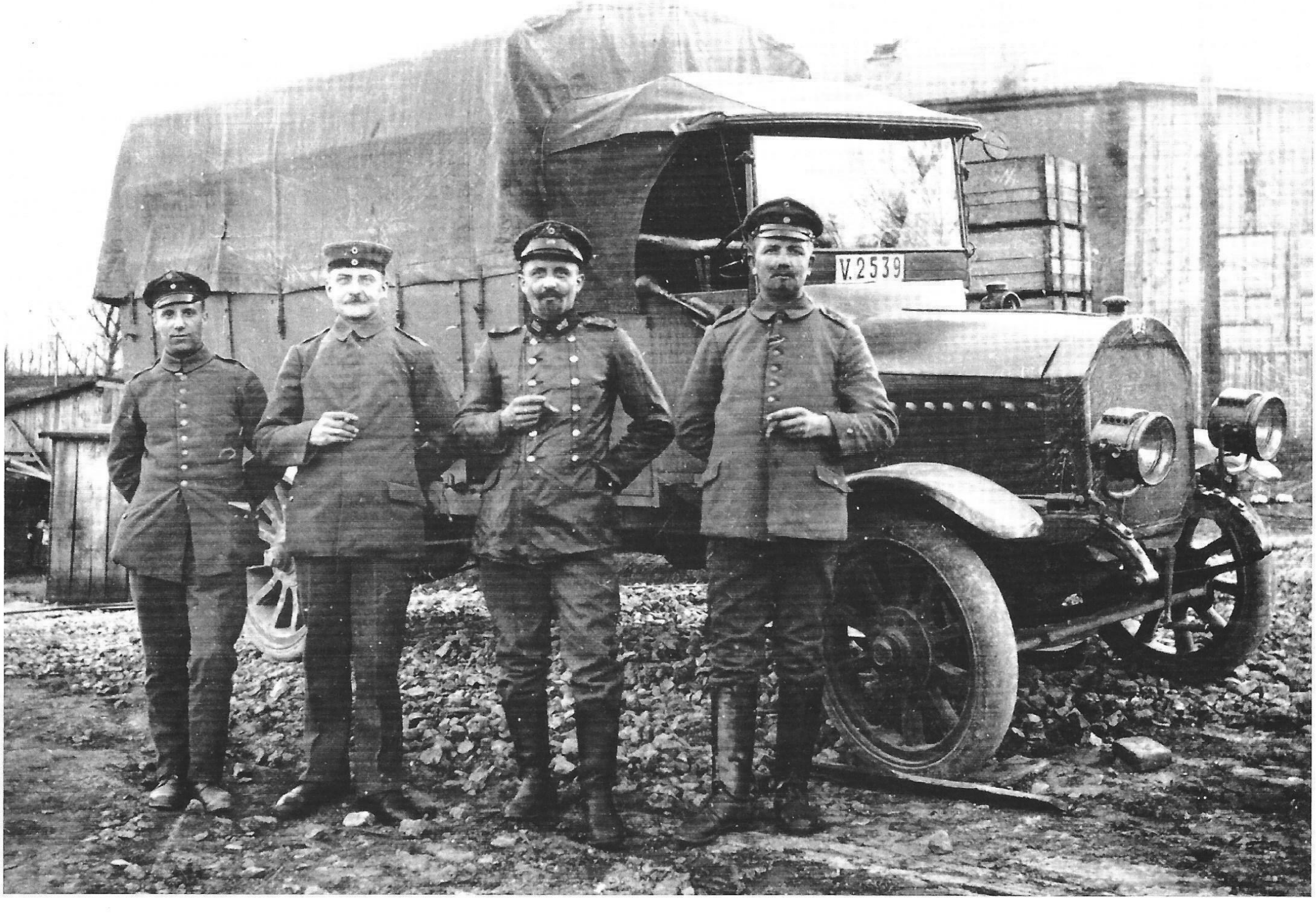
- A foreign commercial truck purchased on German "civvy street" and subsequently impressed into German military service;
- A foreign commercial truck used in occupied territory (Belgium, France) and impressed into German military service;
- A foreign military truck purchased by the Imperial German Army; or
- An enemy military vehicle captured on the battlefield and subsequently used by the Imperial German Army.

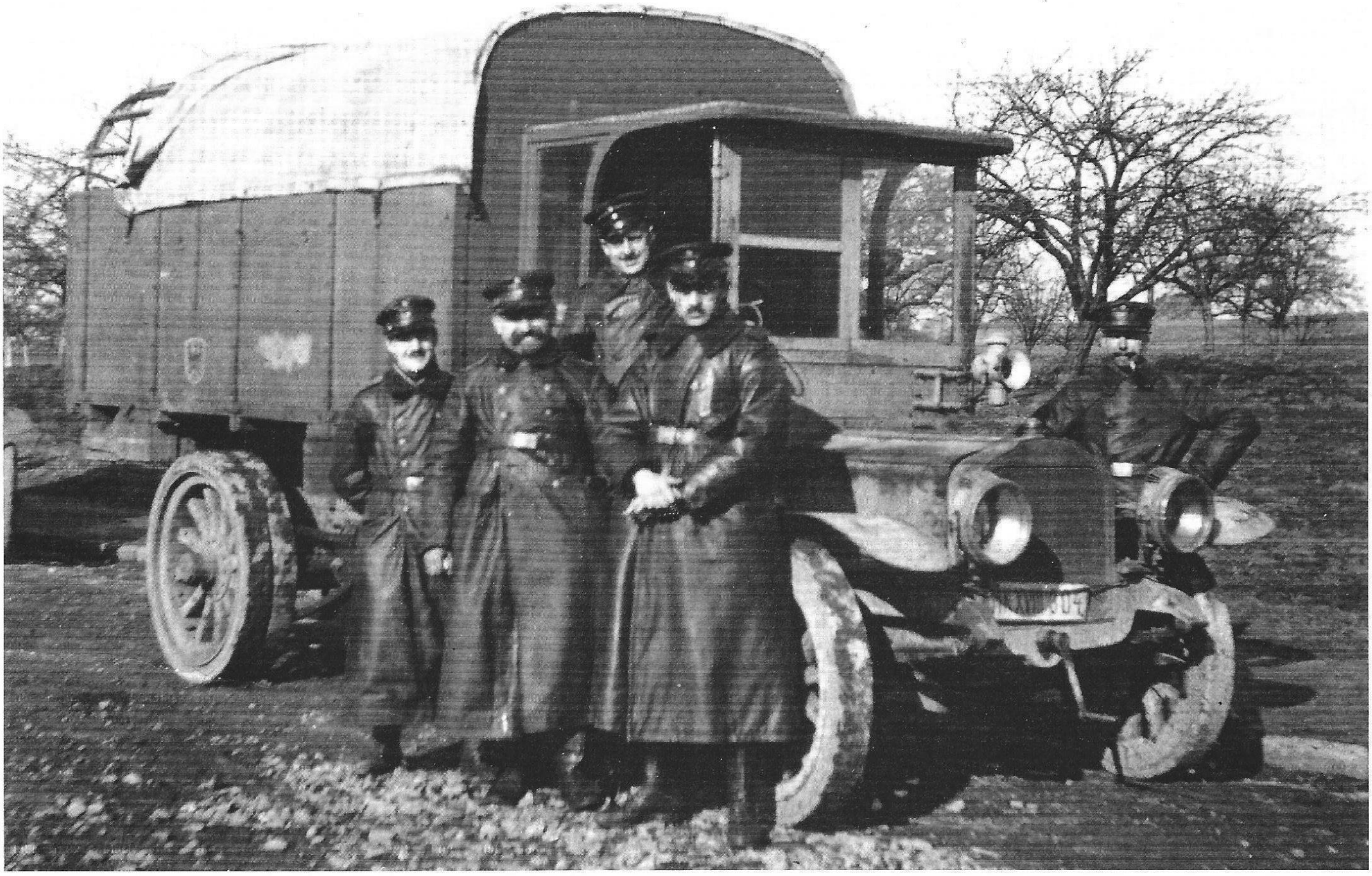


Motorwagenfabrik E. Arbenz & Co (not to be confused with the German Benz-Werke) was a manufacturer of passenger cars and trucks in Switzerland. In 1904 the company, founded by Eugen Arbenz, started production in Albisrieden near Zurich. From 1905, Arbenz switched entirely to producing commercial trucks and it also delivered these to the Swiss Army. The first truck produced was a 1.5-ton version powered by a 2-cylinder 16hp engine. From 1907, Arbenz listed no fewer than 14 different chassis for trucks and buses, with 2-cylinder and 4-cylinder engines developing 12hp to 40hp, all of which featured a chain drive. In 1913 followed a Cardan-driven 3-ton truck powered by a 4-cylinder 30hp engine. In 1917 this design was re-rated as 4-ton. Arbenz was a keen exporter of its products and it sold to Spain, Russia, Italy and Germany, for example. During World War One, Arbenz doubled its output based on orders by the Swiss Army and German Army (with an estimated 1,000+trucks for the latter). Sadly, Arbenz ran into financial difficulties from 1918 as the German Army did not pay in full for the trucks and spare parts delivered. Arbenz trucks shown in this chapter are the 3-ton/4-ton version powered by a 30hp engine. The example on this page is in service with *Armee-Abteilung A*. Note the legible Arbenz logo on the radiator. As Arbenz military trucks were not built to *Regel-Dreitonner* specifications, they kept their foldable soft-top cab roof. Credit: Jochen Vollert Collection



Two more examples of Arbenz trucks in Imperial German Army service. The one above is in service with *Immobiles-Kraftwagen-Depot 7*, and the one below with *5. Armee*. The letter 'J' is used for the word *Immobil* for not to confuse it with the Roman figure 'I'. Credit: Jochen Vollert Collection



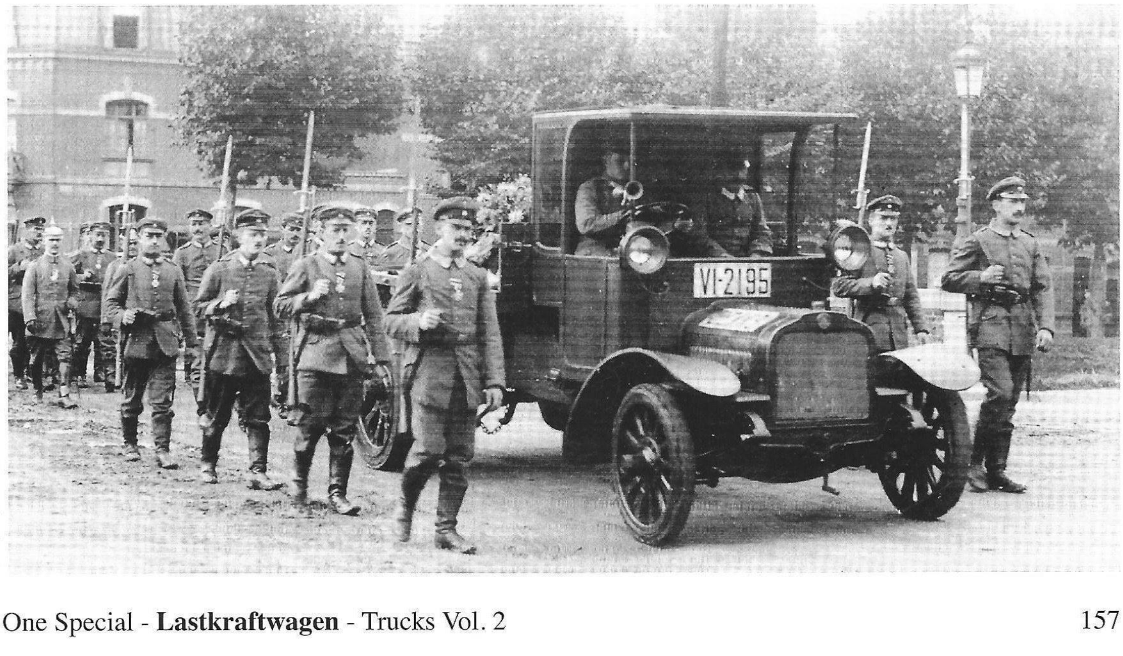


The company Adolphe Saurer was founded in Arbon, Switzerland in 1853 as an iron foundry in St. Gallen. After its move to Arbon in 1869, it also produced knitting machines. In 1896 the company began producing petrol combustion engines that were sold to car manufacturers, yet just one year later Saurer began building passenger cars itself, some of which were built in France under licence and used by the French Army. From 1902, very powerful cars and limousines were added, some equipped with 60hp 9200cc engines. In 1903 Saurer began building commercial vehicles in the form of a 5-ton truck powered by a 30hp engine. Over the next decade, that arm of production became such a huge success that from 1914 the company fully switched to commercial-vehicle production. Saurer trucks were not only widely exported but also built under licence in various countries.

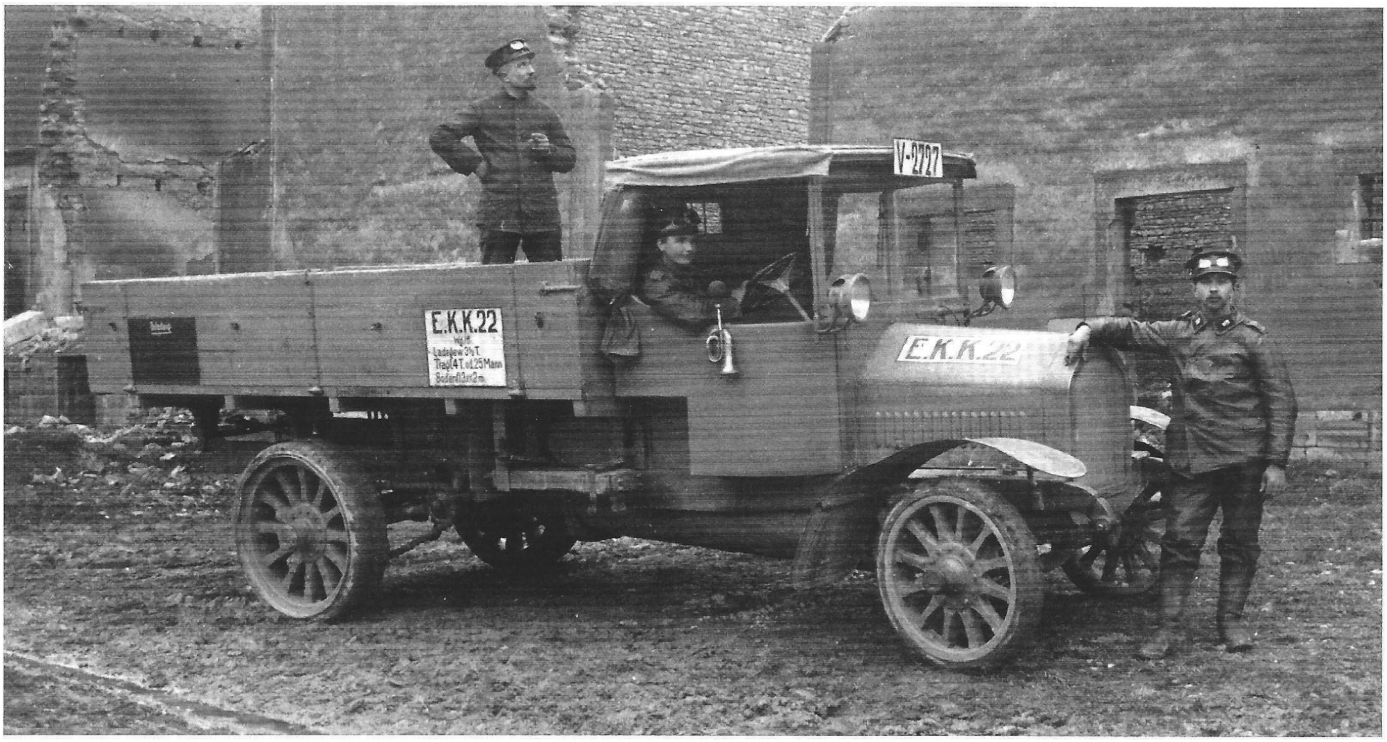
In 1910 Saurer opened a branch factory in Lindau, Germany to build for that market as well. Production comprised trucks in the 1.5-ton, 2-ton, 3-ton and 3.5-ton ranges. The lighter trucks were powered by a 16hp engine and featured a Cardan drive, while the heavier types were powered by a 30hp engine and featured a chain drive. For use in less "civilised" areas, Saurer developed so-called *Kolonialwagen* (colonial type of vehicles) that were of a more rugged design and had larger and wider wheels. The *Kolonialwagen* types came in the 3-ton to 4-ton payload ranges and were powered by 30hp, 36hp or 45hp engines. Saurer also had a cooperation agreement with the German MAN company that produced Saurer trucks for the German Army under licence during World War One (see the chapter on MAN-Saurer).

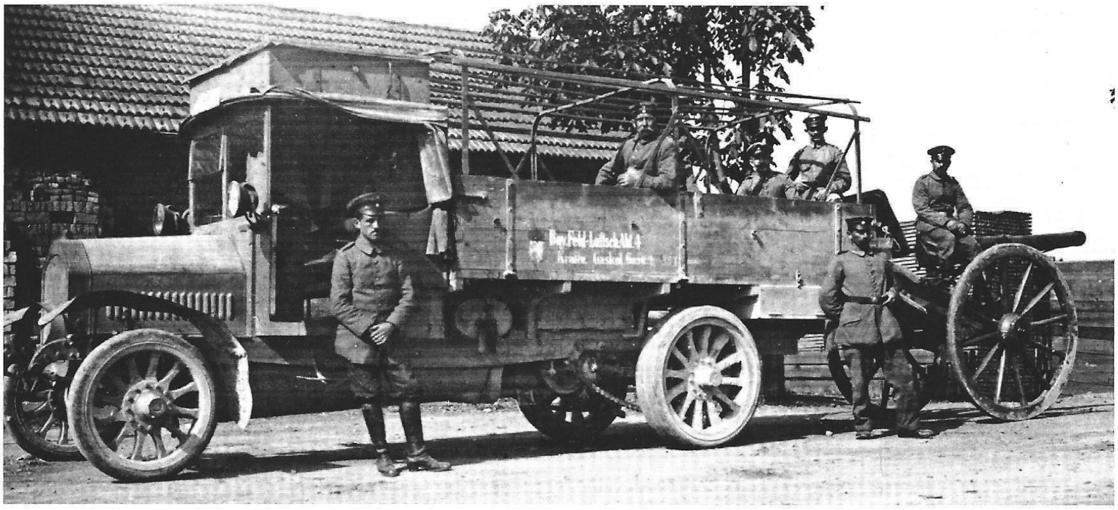
Due to Saurer's omnipresence in the worldwide market for trucks, it also found widespread use in the Imperial German Army. Whether the trucks in this chapter came from the German branch in Lindau, or from other countries, can mostly not be verified.

The '*MK XVIII*' licence plate places this early Saurer truck in the *Reichsgebiet*, district of Frankfurt. Note the chain drive, making it a 3-ton or 3.5-ton type.
Credit: Jochen Vollert Collection



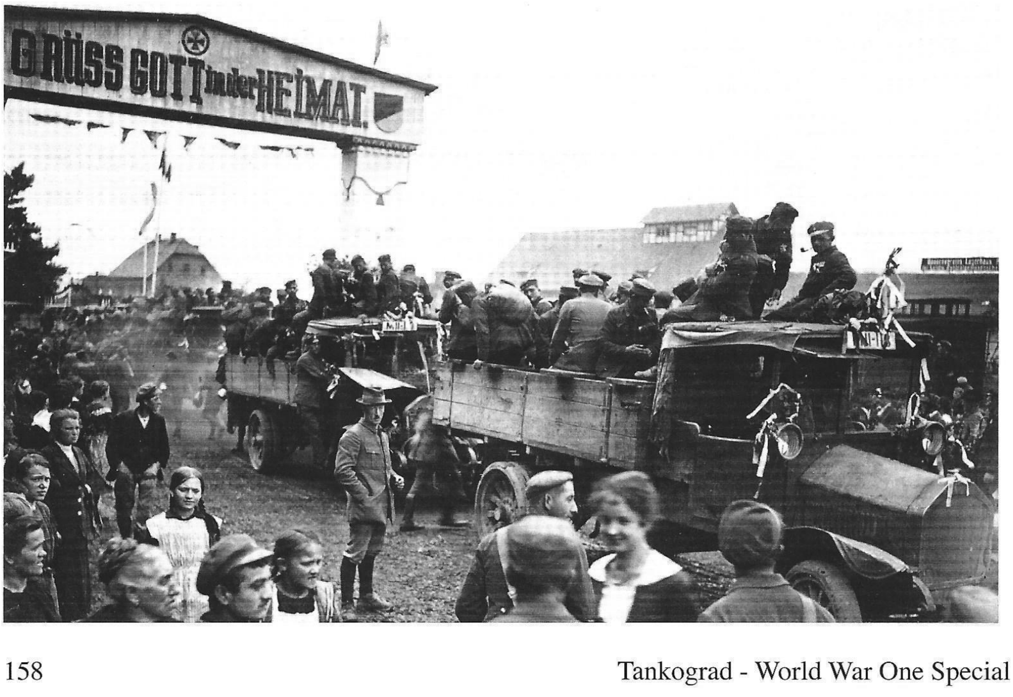
The early 1910 types built by Saurer can be identified by the almost square radiator. This is a 6th Army truck.
Credit: Jochen Vollert Collection



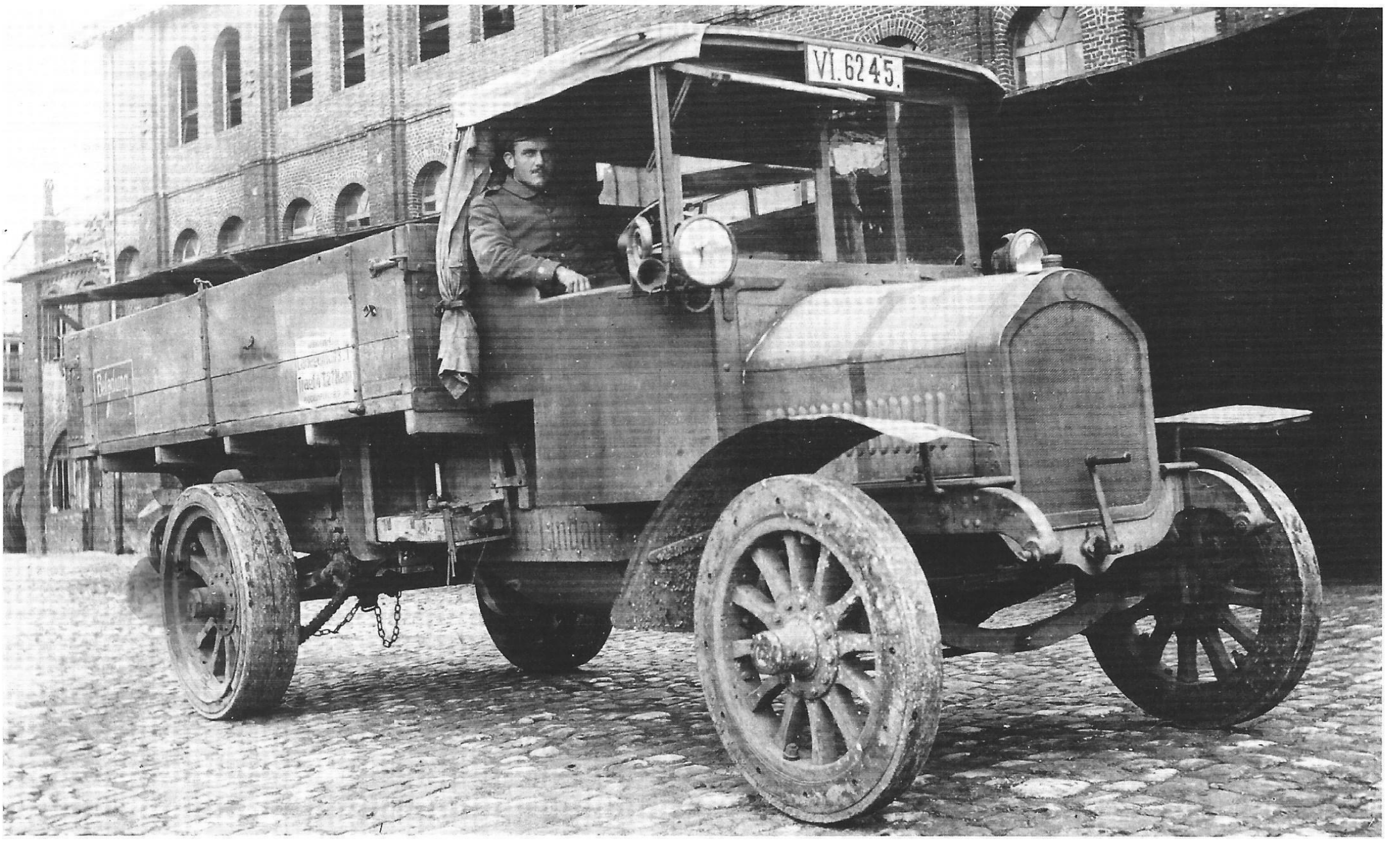


In the immediate pre-war period, Saurer changed its radiator and engine compartment design to house larger and more powerful engines as used in the *Kolonialwagen*. This is a Saurer 4-ton truck in service with *Etappen-Kraftwagen-Kolonne 22* of *V Armee*. As Saurer trucks used by the German Army were commercial truck designs, they retained their wooden spoked wheels.
Credit: Jochen Vollert Collection

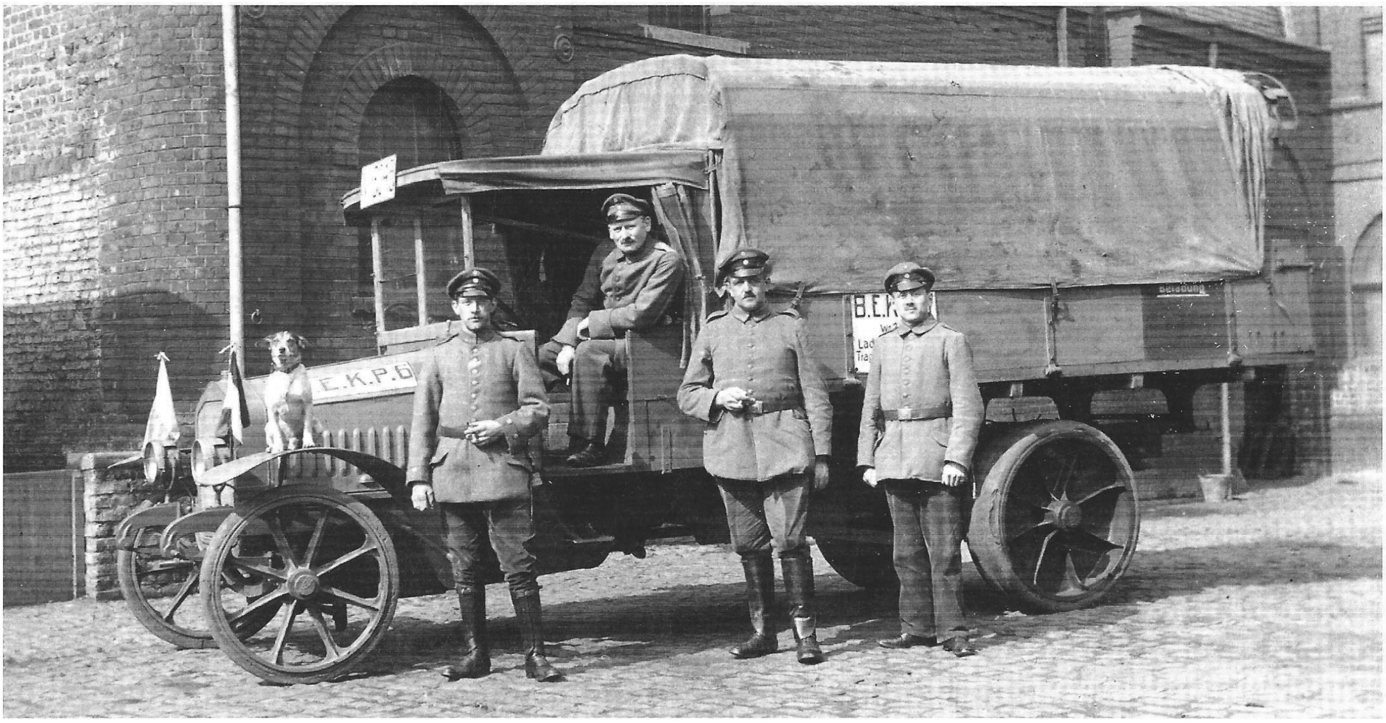
A Saurer 3-ton or 3.5-ton type in service with *Bayerische Feld-Luftschiffer-Abteilung 4* (Bavarian Balloon Corps) and its *Kraftwagen-Gaskolonne* (gas transport column).
Credit: Jochen Vollert Collection


GRÜSS GOTT in der HEIMAT.

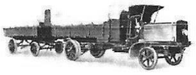
German soldiers returning to the Fatherland after the armistice. The truck column is led by a 3-ton or 3.5-ton Saurer truck. The sign across the street reads '*Grüß Gott in der Heimat*' (welcome back home).
Credit: Jochen Vollert Collection

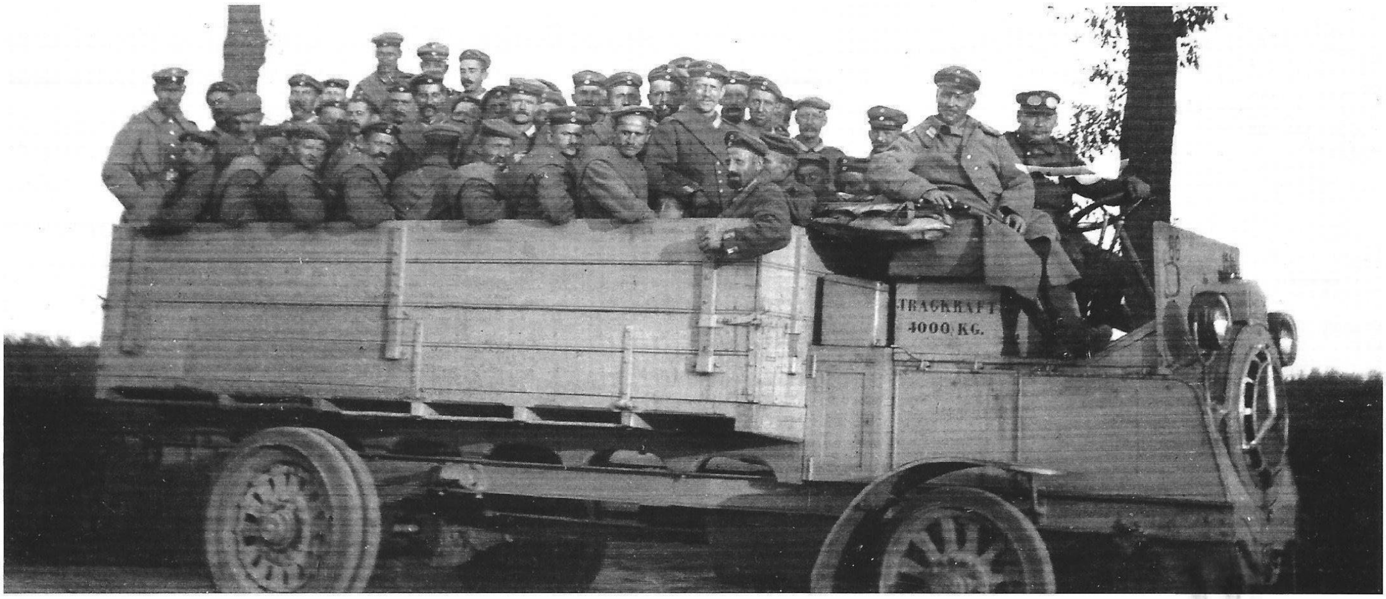


A 6th Army 4-ton Saurer worn out by years of German Army wartime service. Note the larger tyres as used on pre-war *Kolonialwagen.* These also feature drill holes in the sides allowing to identify the running surface made of steel fitted on wooden blocks. A close look under the cargo bay reveals that this particular truck was indeed built at the Saurer branch in Lindau, Germany. Credit: Jochen Vollert Collection

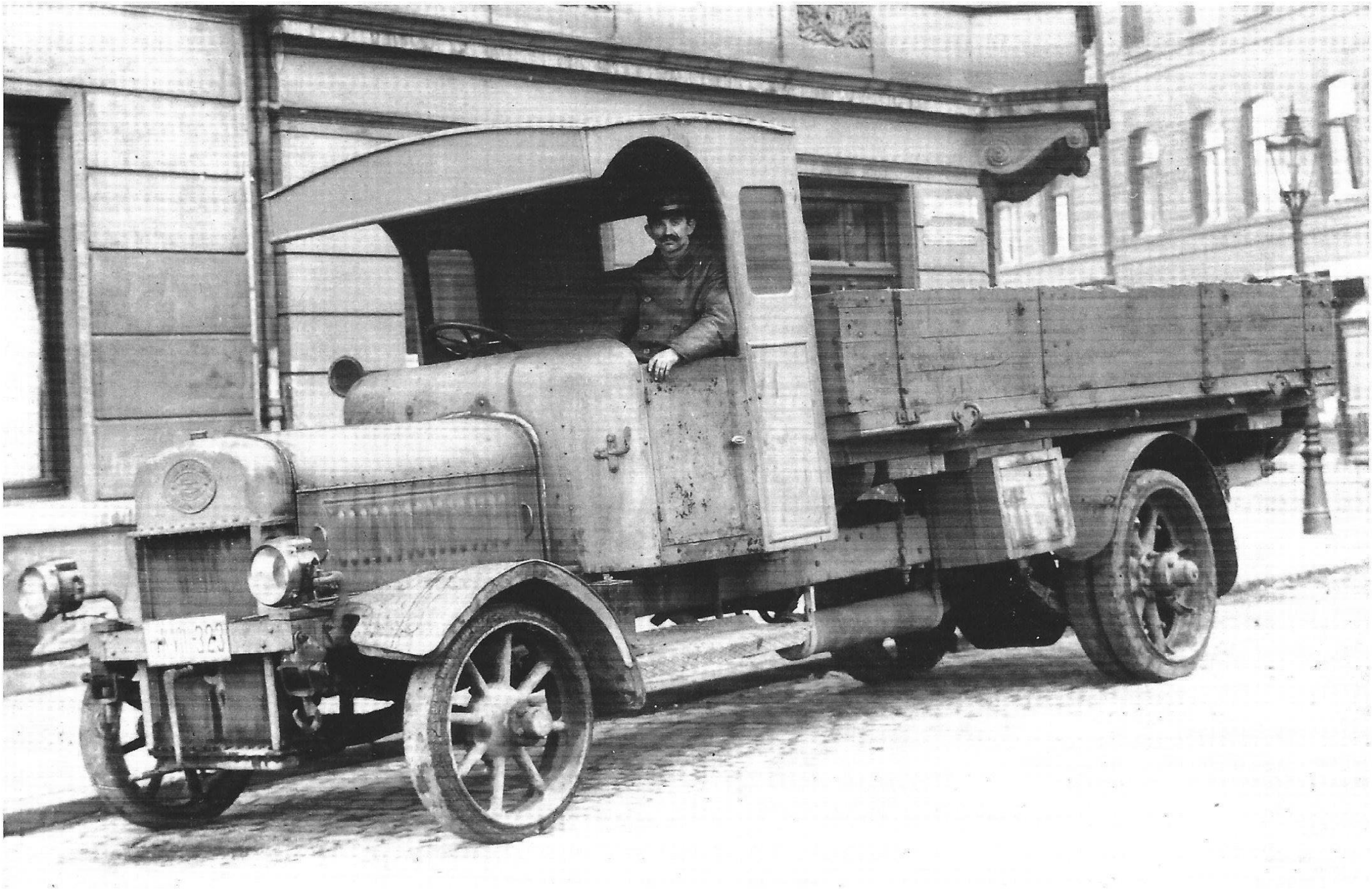


The third "Swiss connection" to Imperial German Army trucks was the company Berna. Berna was founded in 1902 by Joseph Wyss, and it moved to Olten in 1904 to become Berna Motorwerke AG. In 1905, Berna began production of trucks for industry, trucking companies and fire brigades. The first truck was the 2-ton Typ K. In 1909 the range comprised the C, F, G and H types with 1.5-ton to 6-ton payloads. From 1912 the company was named Motorenwagenfabrik Berna AG. In 1913, British Berna Motor Lorries Limited was founded in England to build Berna trucks under licence (the British Army of World War One used 591 Berna trucks from Switzerland and approximately 300 British-built copies). In 1914 Berna launched its most successful type, the 3.5- to 4-ton C 2 with a 4-cylinder 35hp engine. This Imperial German Army truck of *Bayerischer Etappen-Kraftwagen-Park 6* in the photo is presumably a C 2; note the Berna lettering on the front axle hub and the unusual disc wheels on the rear axle. Berna trucks were a very small part of the German wartime effort. The photo is dated April 1916. Credit: Jochen Vollert Collection

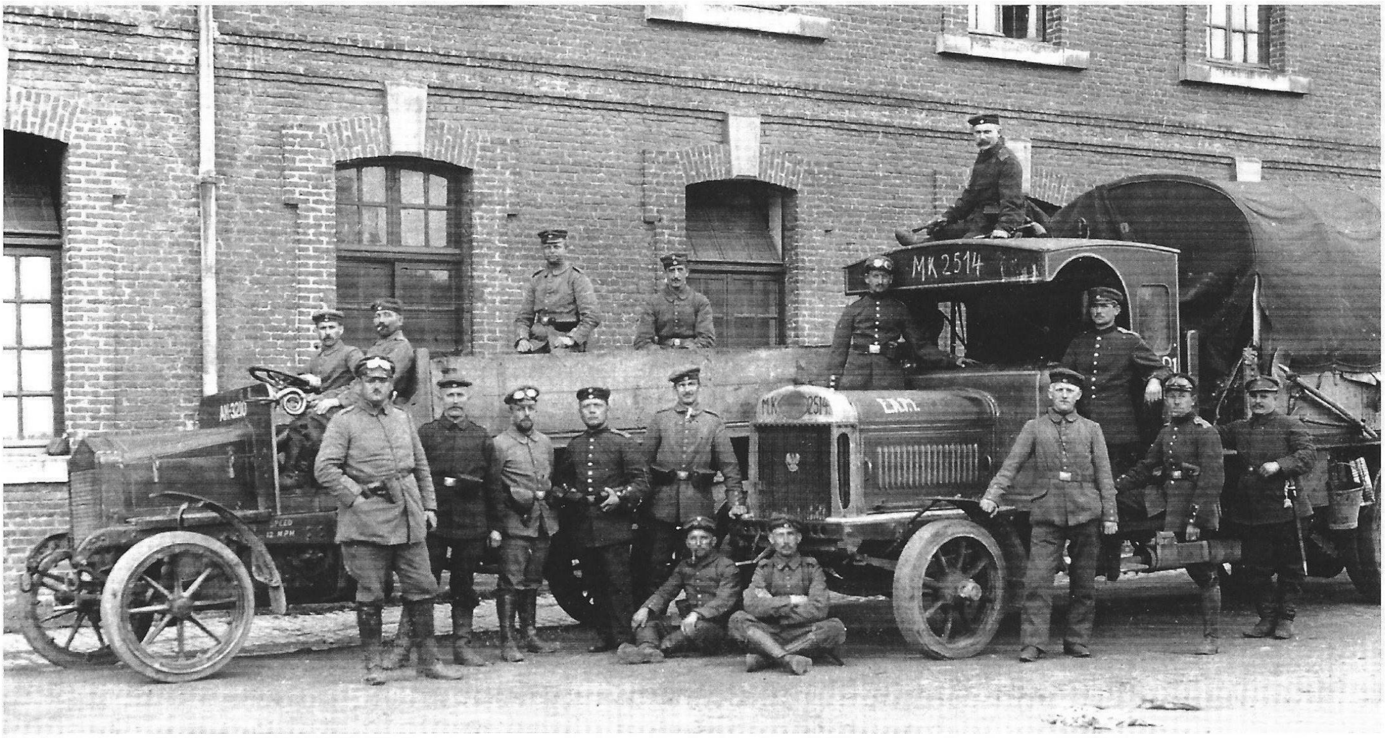




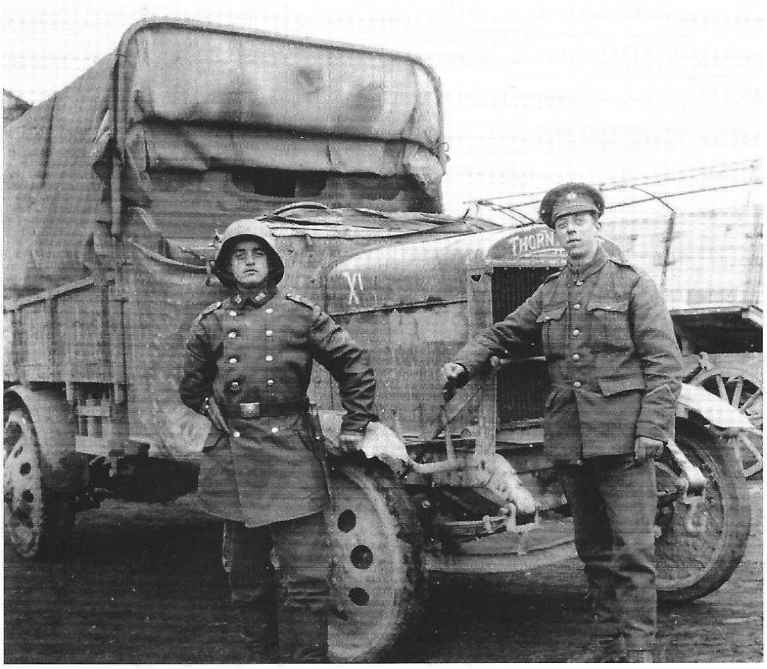
French-made trucks serving with the Imperial German Army, either impressed civilian types or military vehicles, were virtually non-existent. This is a de Dion-Bouton DV cab-over-engine cargo truck that was used as a troop transporter. Note the German *Tragkraft 4000 KG* marking. De Dion Bouton was founded in Paris in 1884, and it became famous as a provider of city buses, with the typical round Goudard et Mennesson radiator resembling a furnace chamber lid of a steam locomotive that was introduced in 1910. Typical for the company range was the DV 3-ton truck with a 4-cylinder 14hp 2815cc engine of 1913 that featured the round radiator and a 4400cc motor in a cab-over-engine design. In the later war years, de Dion-Bouton also built standard trucks such as the 3.7-ton FR and 4.1-ton FS types from 1916-18, with the engine compartment in front of the cab yet retaining the unique radiator design. The German truck-maker Dux copied that design, so also see the chapter there.
Credit: Jochen Vollert Collection



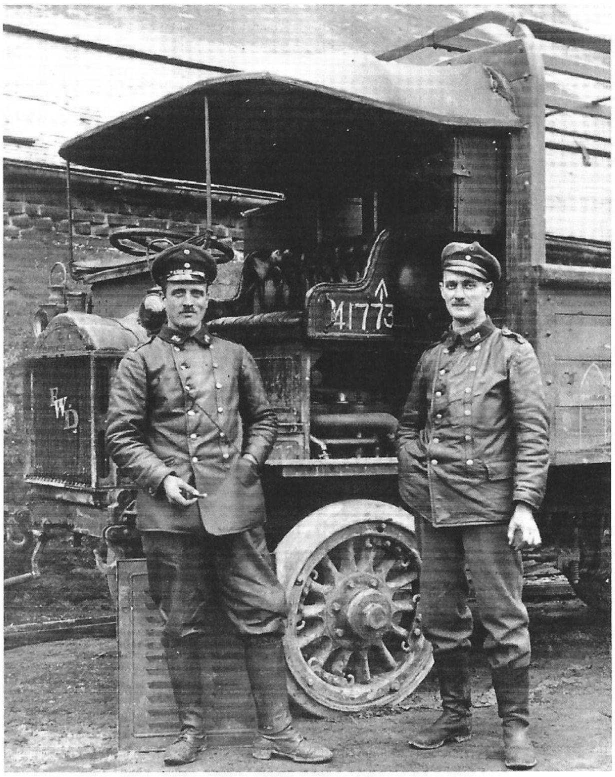
Another rare sight in Imperial German service were British-made commercial trucks. It remains unclear how this rarity made its way into the German military arsenal, as the manufacturer did not export to Germany before the war. Possibly this vehicle came from a company in occupied Belgium or France and was found by the German side there. It is a Leyland 5-ton to 6-ton X.240.W. This particular vehicle was built with an X2 40hp engine from 1911-12, and in 1913 modernised with an X3 40hp engine. Note the massive manufacturer's badge on the radiator and the '*MK VIII*' licence plate of the Coblenz military district near the French border in Germany. Credit: Jochen Vollert Collection



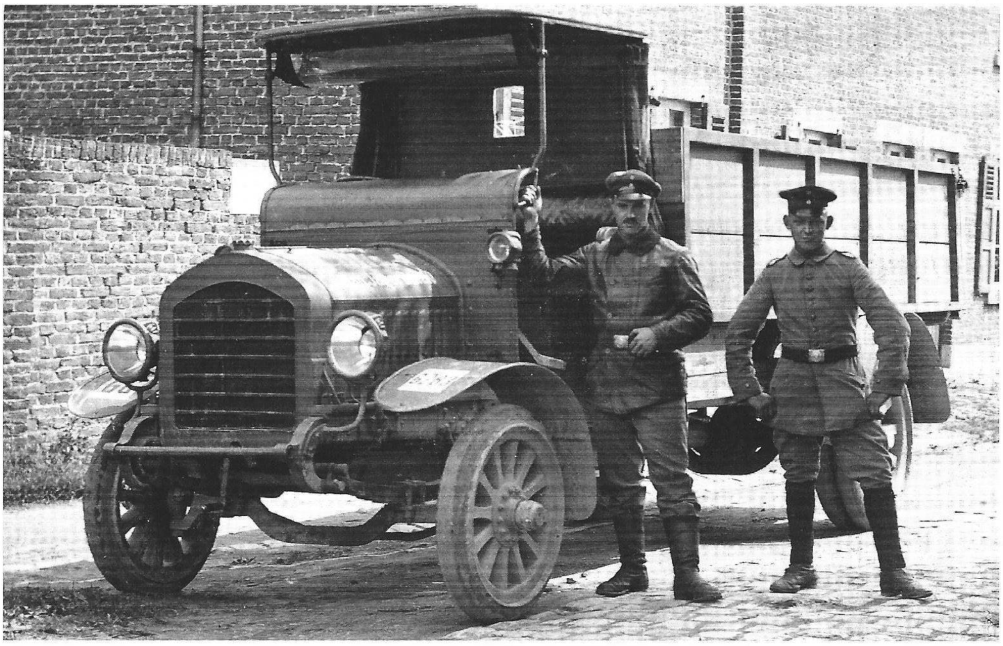
More British rarities. On the left is a Hallford 3-ton A Type Model EA80. The EA80 was a subsidy model and was therefore taken over into British Army service in 1914. It still carries the British licence plate 'AK-3210', which identifies it as having been registered in Bradford. The Dartford Ironworks of J. & E. Hall was founded in 1785. In 1907 the company entered the commercial-vehicle market with a conventional 3-ton truck. From 1914, Hallford production was entirely devoted to its 3-ton model for army service. The vehicle on the right is a Leyland Model X4. This is a commercial truck that was impressed into British Army service when war broke out. The provisional marking 'MK 2514' is German, yet it lacks the Roman figure that would identify the associated military district. Founded in 1896, Leyland is probably the most iconic of British truck-makers with a history far beyond the scope of this publication. In 1904 Leyland built its first internal combustion engine vehicle. In 1912 a Leyland 3-ton truck was approved under the War Office subsidy scheme, and by the outbreak of hostilities just over 2,000 petrol-driven Leylands had been built.
Credit: Jochen Vollert Collection



These two rare photos actually show British Army trucks captured by the German Army. Above is a Thornycroft J type, and note that the British military markings have been painted over. John I. Thornycroft & Co Limited was founded in 1896, and it delivered its first army contract of steam wagons for the British Army as early as 1899. From 1902 the company built a range of trucks in the 2-ton to 4-ton payload ranges. 1913 saw a 3-ton model built to War Office subsidy specifications, the J Model. Thornycroft became one of the major army suppliers and it built approximately 5,000 J Model trucks for service in the Great War.
Credit: Jochen Vollert Collection



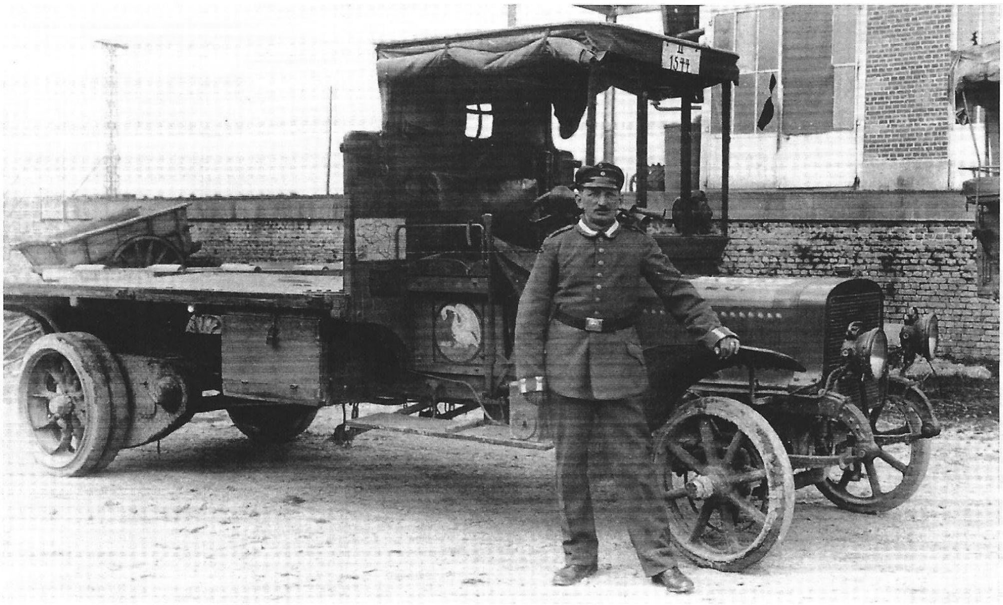
This is an ex-British Army FWD Model B. The American company FWD built this type for British Army service. The census number '41773' indicates this FWD arrived in France in mid-1917. Four Wheel Drive Auto Co. was founded in 1912 in Clintonville, Wisconsin, and it built 15,000 FWD 3-ton trucks for the US Army alone. Credit: Jochen Vollert Collection

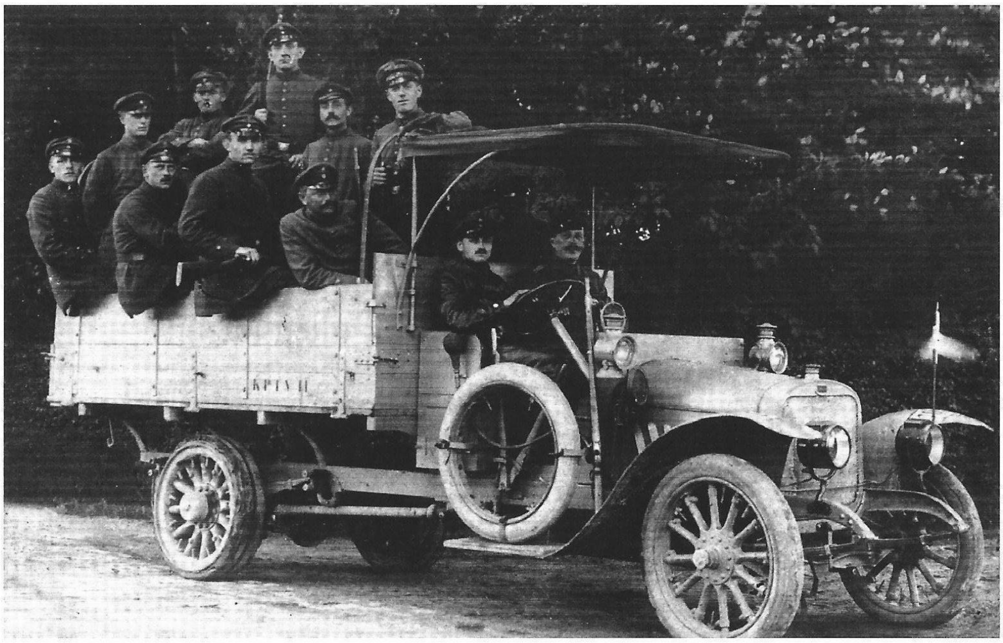


Surviving documents and photos, or even publications about some of the truck-makers of the "brass era" of motoring, are in many cases lacking. Consequently, some of the Imperial German Army trucks of World War One defy identification even in the modern computer age. These three trucks serve as an example that there is still material to be unearthed, and the author of this publication hopes that someone will continue to bear the torch to further knowledge on the topic.

This truck is potentially of Belgian origin, and it carries the markings of *Hannoversches-Jäger-Bataillon 10* light infantry battalion. Note also the rolled-up windscreen of synthetic transparent material. The photo is dated August 1915.
Credit: Jochen Vollert Collection

This truck carries the marking of an *Armee-Flug-Park* (army aviation park) of *II Armee*. It could be a product from the company Pipe from Brussels, and previously in service with the French or Belgian Air Arm before falling into German hands. Note the colourful artwork on the side of its cab, typical for French and Belgian Air Arm units of that era. Pipe was the trademark of Compagnie Belge de Construction Automobile, which had started in 1898 by producing passenger cars before entering the truck-building business in 1905. Note also the technically interesting encapsulation of the chain drive on the rear axle.
Credit: Jochen Vollert Collection

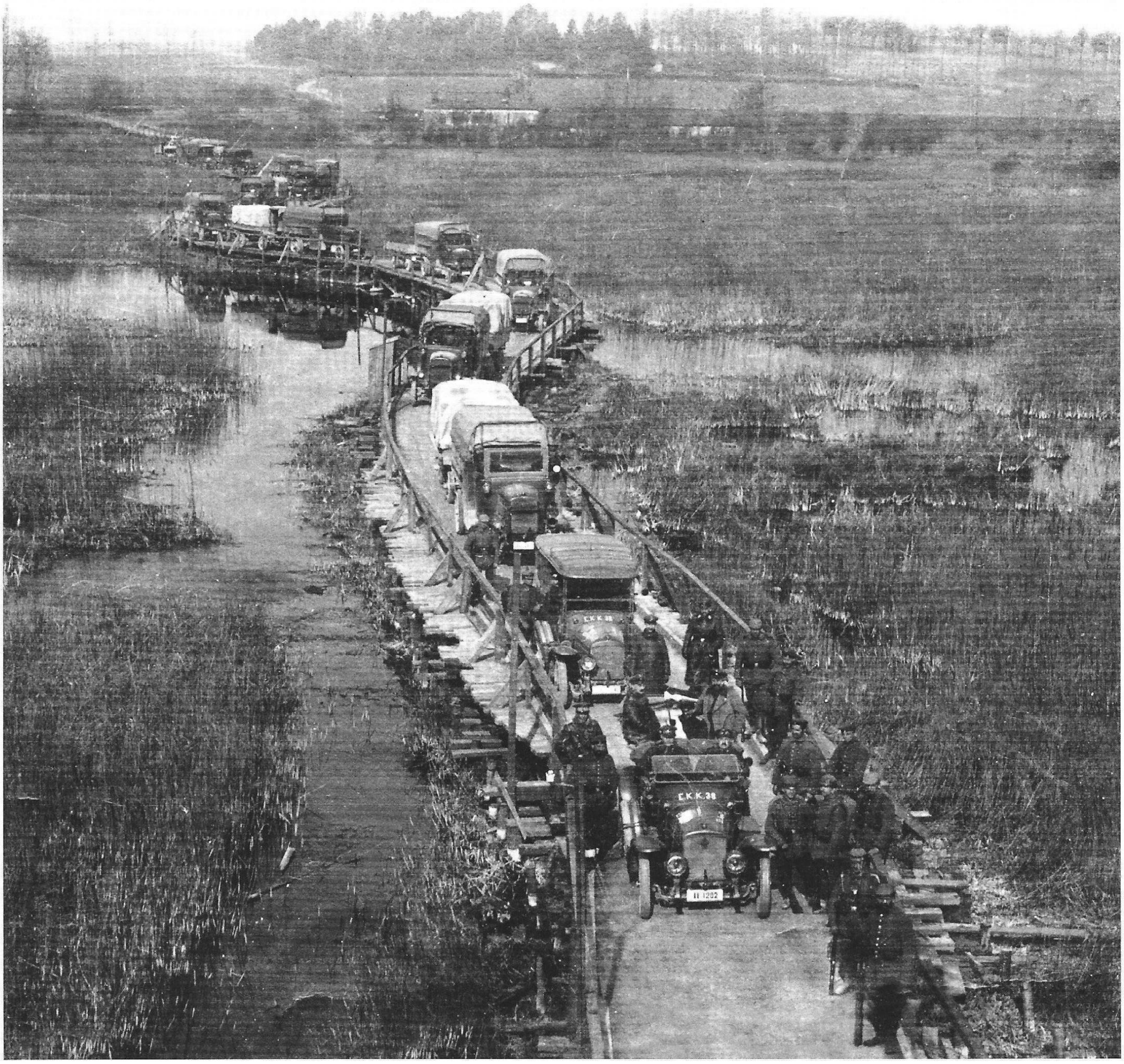




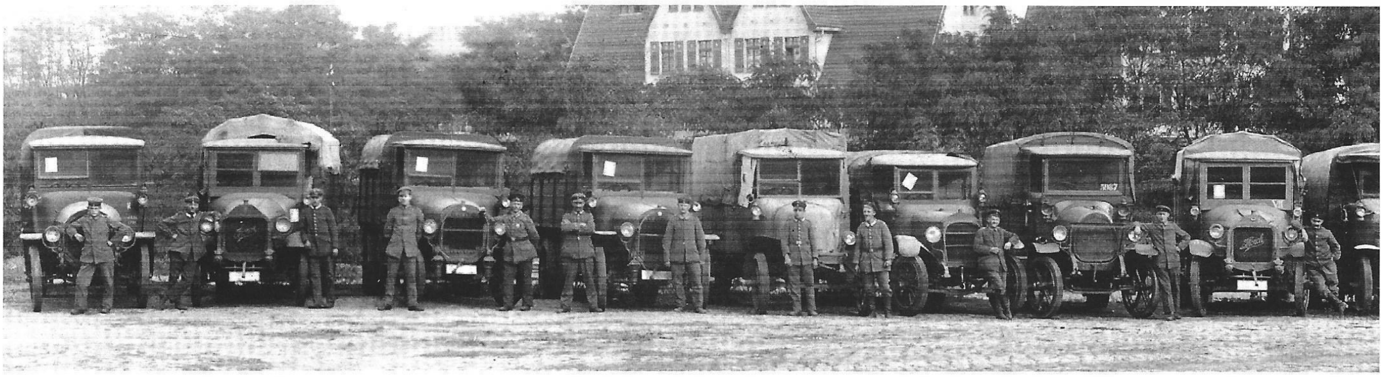
This could be a Fiat, and it is now seen here in service with an unidentified German unit '*KPTN 11*'. By its appearance it is a truck in the 2-ton to 3-ton payload range. F.I.A.T. (Fabbrica Italiana Automobili Torrini) was founded in Turin in 1899, and in 1902 it started production of commercial vehicles. The 3-ton Tipo 18 truck was made in immense numbers for the military in World War One, with monthly output reaching 1,900 units in 1917.
Credit: Jochen Vollert Collection

05. Im Kriegseinsatz / In Wartime Service

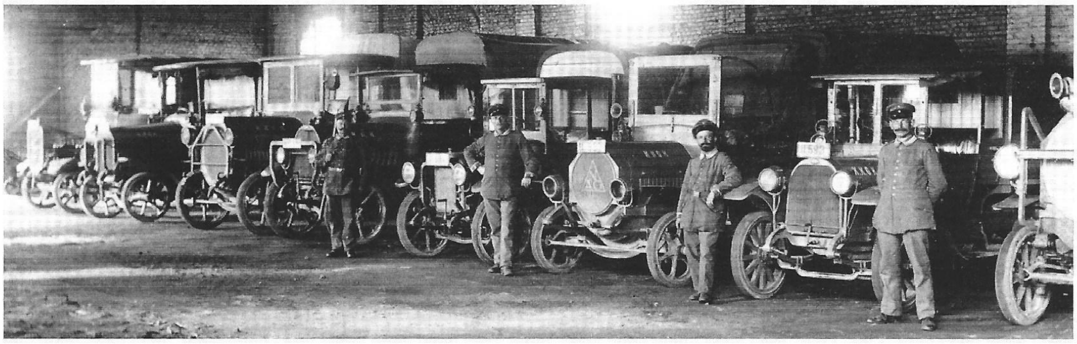
The life of military truck drivers in the Imperial German Army was not an easy one. It involved highly repetitive daily routines, long duty hours, bad roads, the risk of being fired at by artillery or from the air, and last but not least the truck technology that was not built for tough work under difficult road conditions. Furthermore, there was a chronic shortage of spare parts such as rubber-rimmed tyres, bad fuel and work that stretched out over extended periods of time. In the end, truck drivers were less prone to be killed by the enemy, and instead by the exhausting circumstances of their job. Trucks often had to do their duty far beyond a state of sensible repair, and if in need of replacement, the new arrivals were not of homogenous types, so this led to a disastrous mix of makers' types and a chronic shortage of spare parts. After a working day that regularly lasted about ten working hours, the crew was covered in a thick crust of dust, oil and mud, whilst being half-poisoned by engine fumes created by their truck or a whole column of trucks, and half-deaf from the un-dampened engine noise. Their black leather outfits soon blended into the colours of the road. They had to perform a daily routine of maintenance and smaller repairs after their ten-hour shift, before they received a meagre meal and had to put up with lice-infested field quarters. In wintertime, problems doubled with the chance of catching pneumonia or suffering from hypothermia.

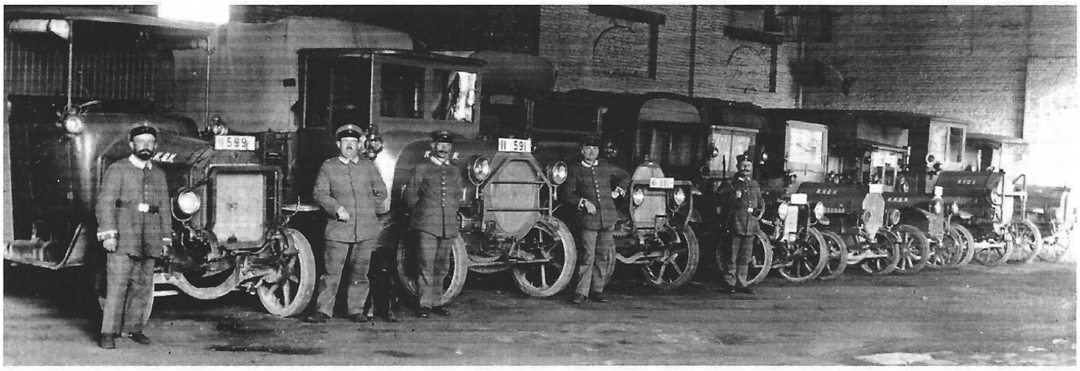


A photograph that perfectly visualises what daily routines in supplying an army of millions on a daily basis truly meant for *Kraftwagen-Kolonnen* truck supply columns. The column here has to use an improvised engineer bridge made of tree trunks to cross a swamp to reach a unit on the frontline. The threat from air attack or artillery fire was omnipresent, and one only has to imagine this scene at night under headlight restrictions or in winter with solid rubber wheels on icy roads, or all of it combined. Credit: Jochen Vollert Collection



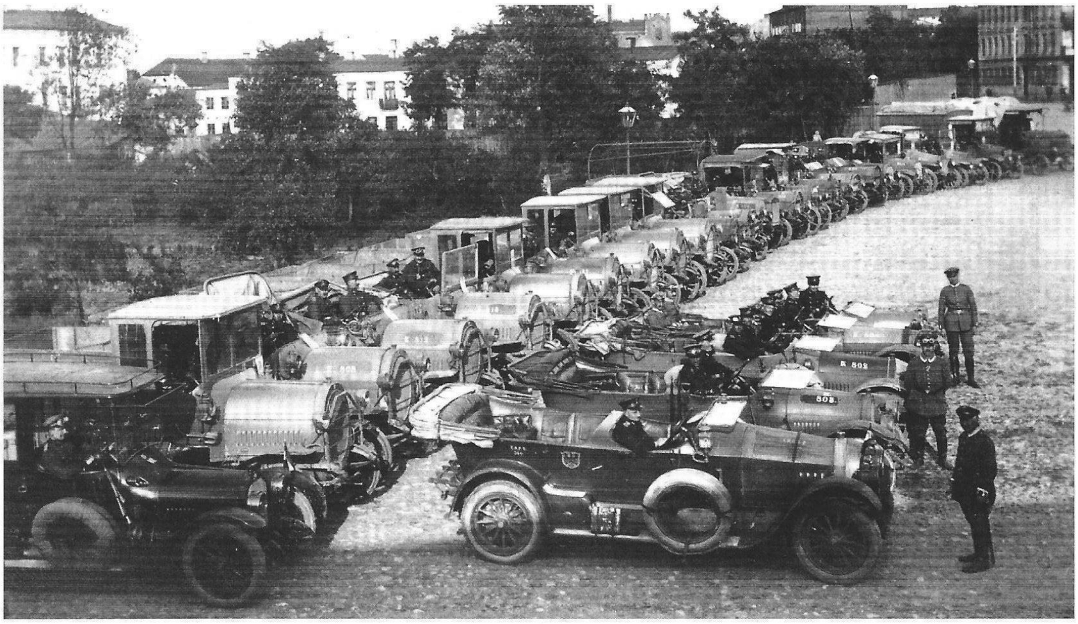
When a unit was created, the ideal was to equip it with trucks of the same make, same engine power and the same payload range to ease column duty, to train drivers properly and to have a safe level of spare-parts supply. On some rare occasions, this was indeed practised within the Imperial German Army, yet in most cases the sheer variety of impressed commercial and partially militarised truck types from dozens of different manufacturers made this impossible. With damaged trucks replaced on a "what is available" policy, the situation worsened every war year and it led to units with often all (!) their trucks being of different variants. From left to right: Lloyd/Hansa-Lloyd, Horch, Benz, Benz, Komnick (?), unidentified, Dürkopp, Horch. Credit: Jochen Vollert Collection

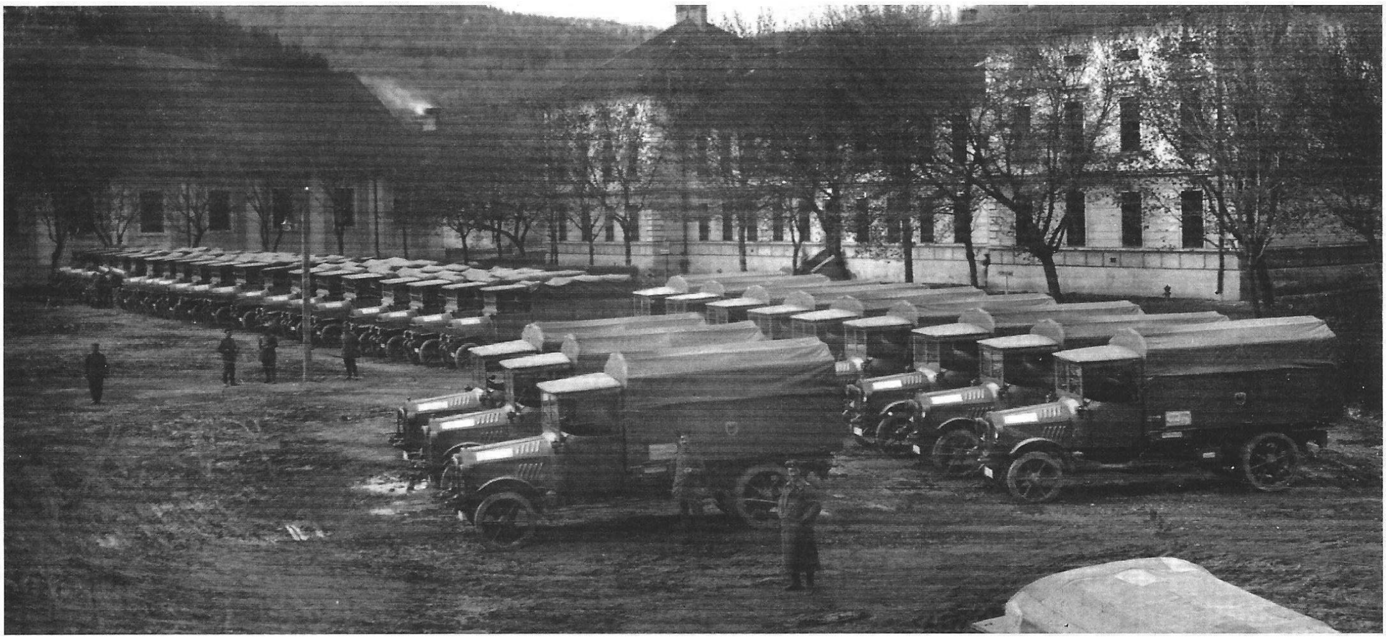




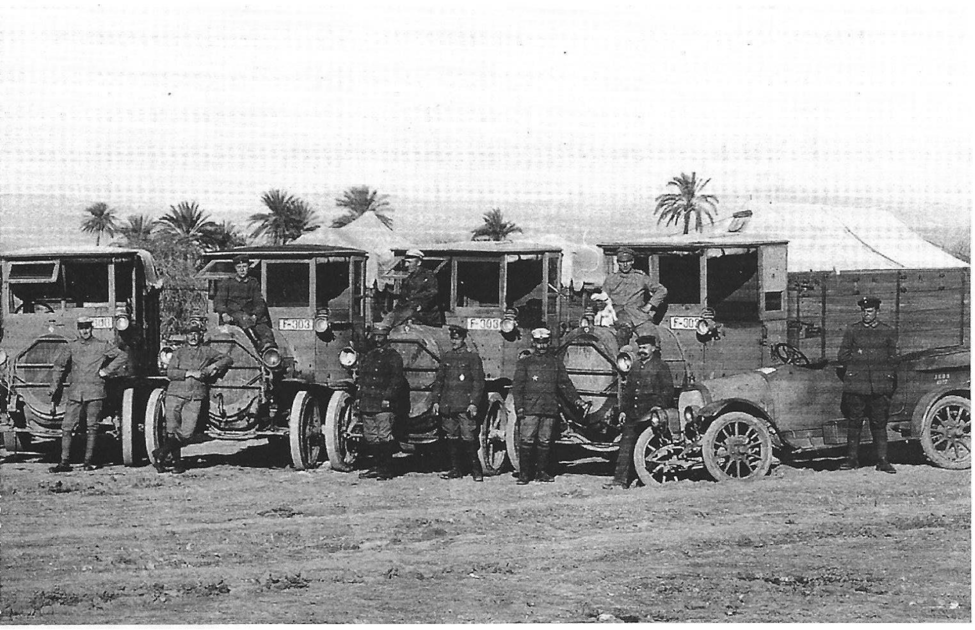
Two photos of the motor pool hall of *Kraftwagen-Kolonne des Garde-Korps*, f.l.t.r: (above) Mannesmann-Mulag, Benz, NAG, Opel, Adler, NAG, Opel, NAG; and (below) Benz, NAG, Opel, Adler, NAG, Opel, NAG, with the rest unidentified. Credit: Jochen Vollert Collection

***Etappen-Kraftwagen-Kolonnen* and *Etappen-Kraftwagen-Parks* supplied the army with all necessary supplies, in particular ammunition and food. A sinlge column had the capacity of two horse-drawn infantry or artillery columns, but on roads it was about three times faster. The *Etappen-Kraftwagen-Kolonne* was, under ideal circumstances, equipped with four staff cars for officers, two passenger cars, twelve solo trucks (in this case NAGs) for transport duties, one mobile field repair workshop on a truck, one fuel transporter (see background) and one bus to transport additional personnel such as office clerks (not visible here).** Credit: Jochen Vollert Collection

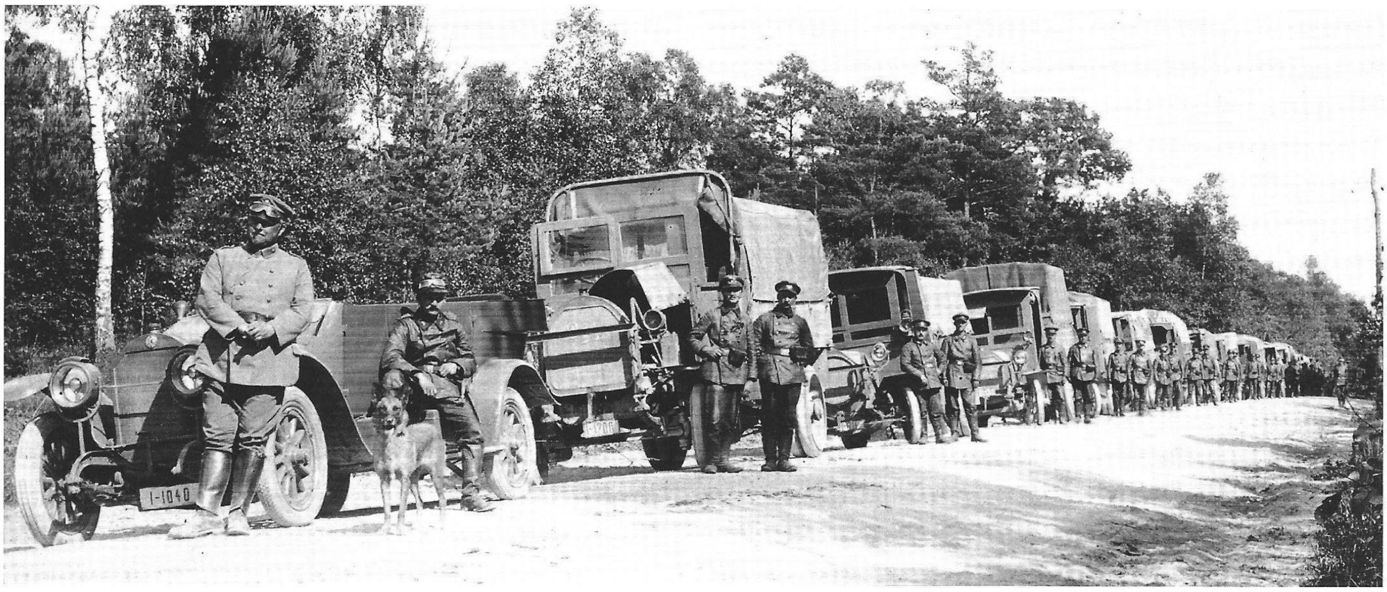


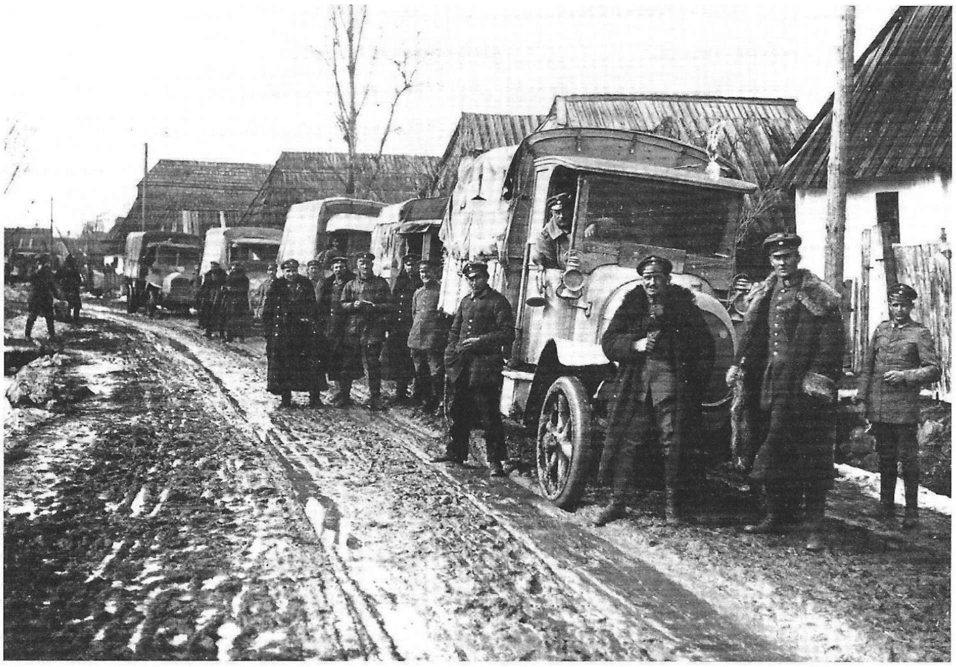


What looks like the ideal supply unit equipped with just two truck types in two payload ranges is indeed the spare-vehicle pool of an *Etappen-Kraftwagen-Park* storing vehicles to replace unserviceable trucks in subordinate *Etappen-Kraftwagen-Kolonnen*. The photo shows no less than 20 Dixi and 12 Horch trucks in factory-fresh condition Credit: Jochen Vollert Collection

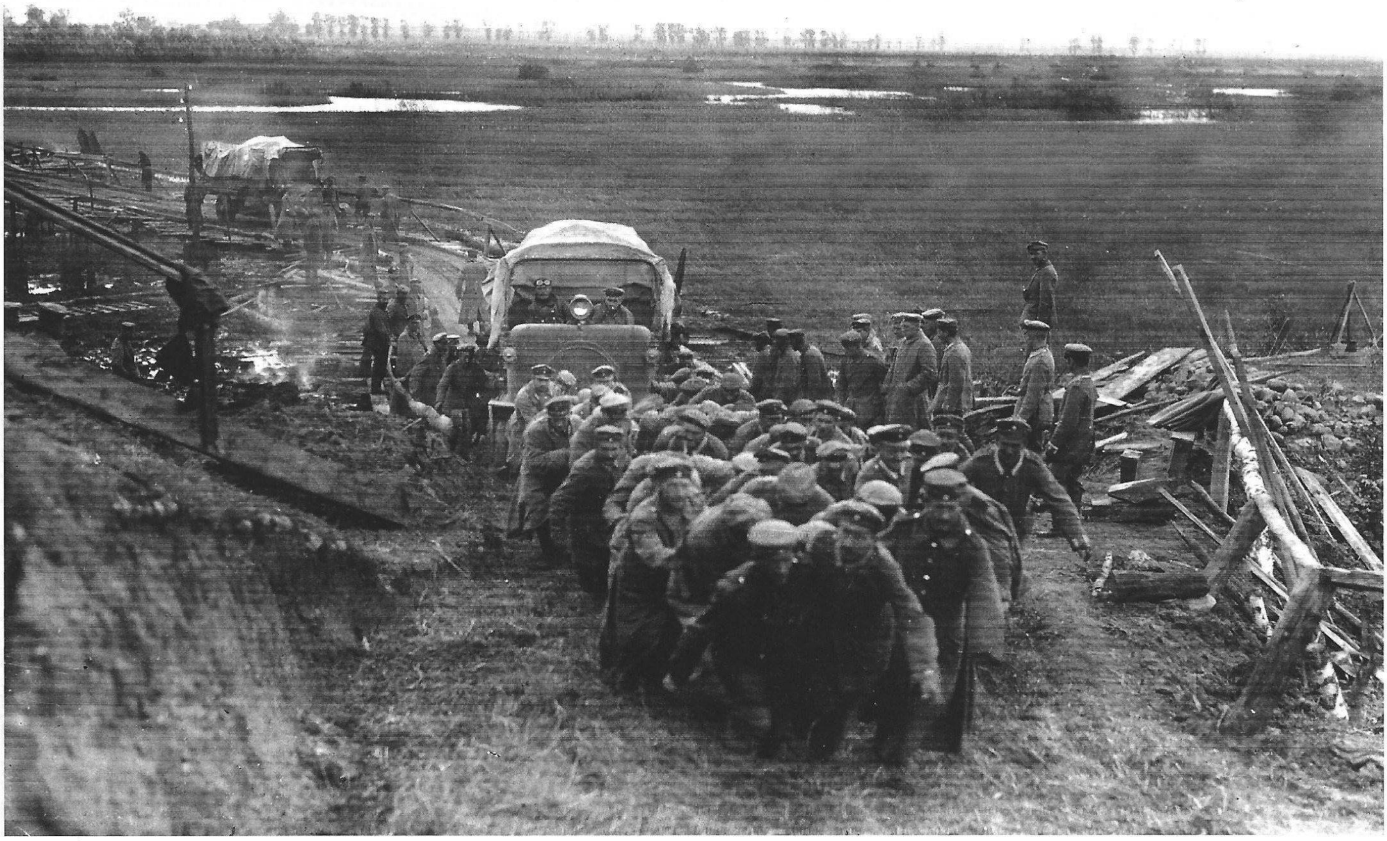


This unit is a noteworthy exception for all are NAG trucks here. What looks like licene plates are indeed unit identification numbers, all trucks have identical ones: '*F-303*'. The '*F*' puts this unit under command of the *Heeresgruppe F* army group in Turkey that was created in mid-1917 and that served e.g. in Palestine. Unit '*303*' is the *Bayerische Flieger-Abteilung 303* of the Bavarian army air service. Credit: Jochen Vollert Collection

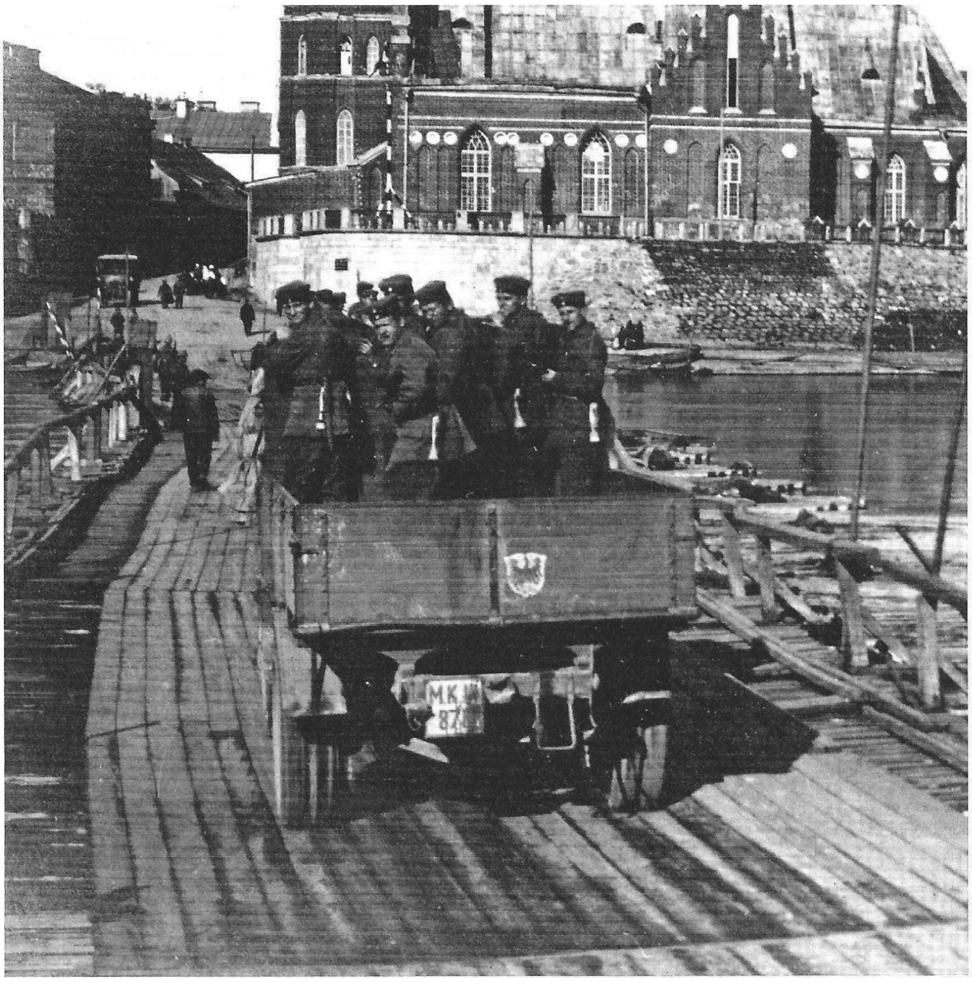




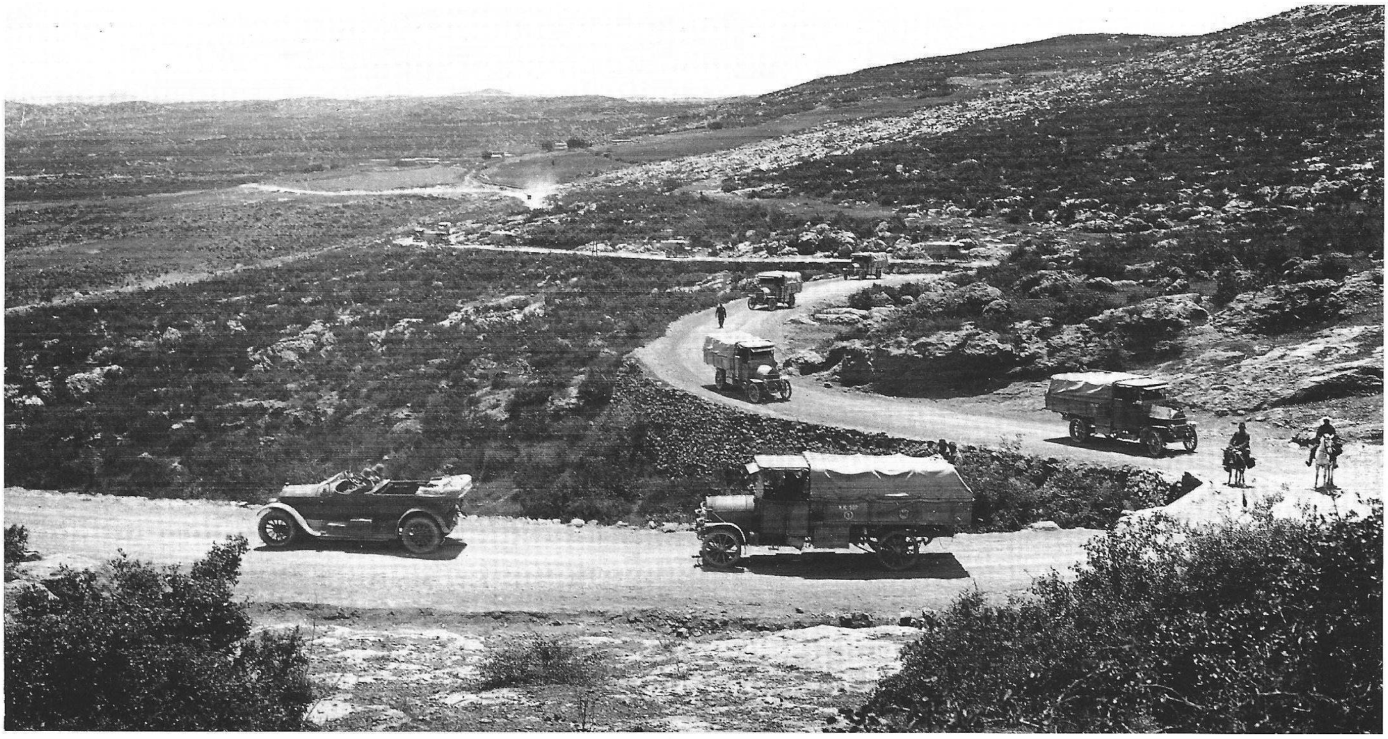
When a marching column was formed out of motor vehicles, their technical condition, average top speed, road conditions, time of year and expected weather during the operation had to be taken into consideration. During the road march, trucks of a column had to observe a set distance between individual vehicles. This distance was dictated by road conditions, speed and resulting braking capacity of the trucks and weather. Under routine dry conditions on hard roads, the distance was normally 10-12m. In hilly conditions and particular steep climbs, it might be required that each truck cross an obstacle individually and then gather the column again on the other side. Reasons for larger distances in columns could be hills, dust or ice. In case the distance between trucks of the column became too large, the leading vehicles had to slow down till the point that the last truck was in position again. The last vehicle in the column was normally the *Kraftomnibus* (bus). Credit: Jochen Vollert Collection



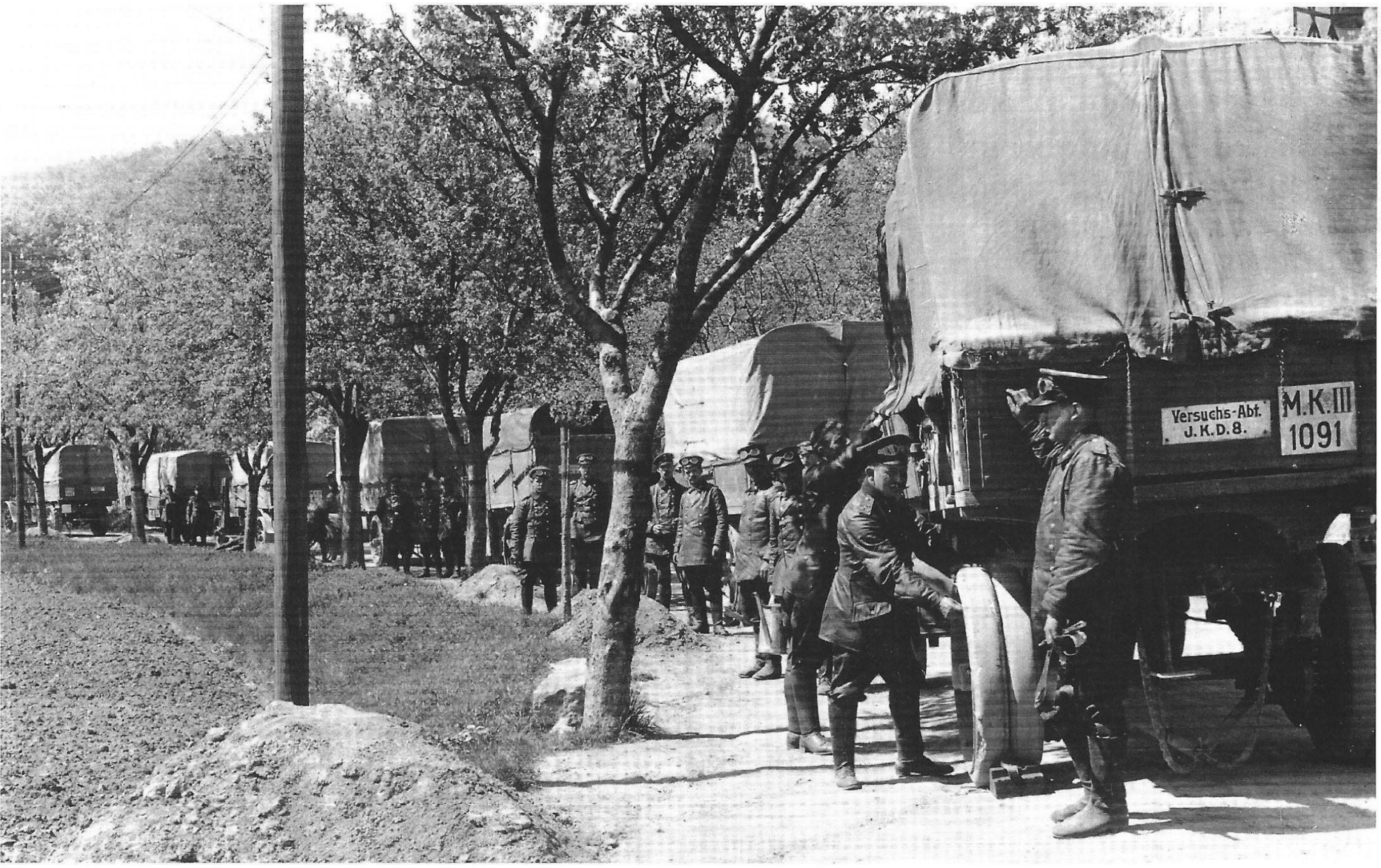
Each *Etappen-Kraftwagen-Kolonne* had its own unit basic maintenance and repair facilities. Yet only the major *Etappen-Kraftwagen-Parks* had their own recovery assets such as trucks fitted with winches or other means of recovery. As a result, when in trouble due to a breakdown, soldiers of the column were first and foremost alone if they were to keep their rides operational. The NAG truck in this photo has either suffered a mechanical breakdown or is just not powerful enough to negotiate the steep hillside. In any case, in the *Millionenheer* "army of millions", muscle was never far away and more than 30 soldiers have come to the rescue. Notably, the assistant driver remained in the comfort of his ride during this operation.
Credit: Jochen Vollert Collection



It was not always a whole column that was needed for important duties. These soldiers, seemingly unarmed and outrigged with only the *Krätzchen* field cap, take a ride into the next city for some deserved rest and recreation. The truck, with a licence plate starting with '*MK III*', is from the Berlin military district, so there should be no shortage of interesting pastimes ahead.
Credit: Jochen Vollert Collection



To link the European part of Turkey with war zones in the east, the Constantinople-Baghdad railway was built. In 1916 the railway was not yet complete, and in the Taurus Mountain region transport had be performed using trucks to supply the three Turkish armies in the eastern Caucasus, Iraq and Egypt. In support of allies, in January 1916 the German High Command ordered the creation of German support forces in the form of *Sonderkommando 500 - Kraftfahrtruppe Taurus*, which is seen here on a stretch of the 77km Taurus road. The trucks are early Hansa-Lloyd models with the round bonnet. Credit: Jochen Vollert Collection


Versuchs-Abt.
J.K.D.8.
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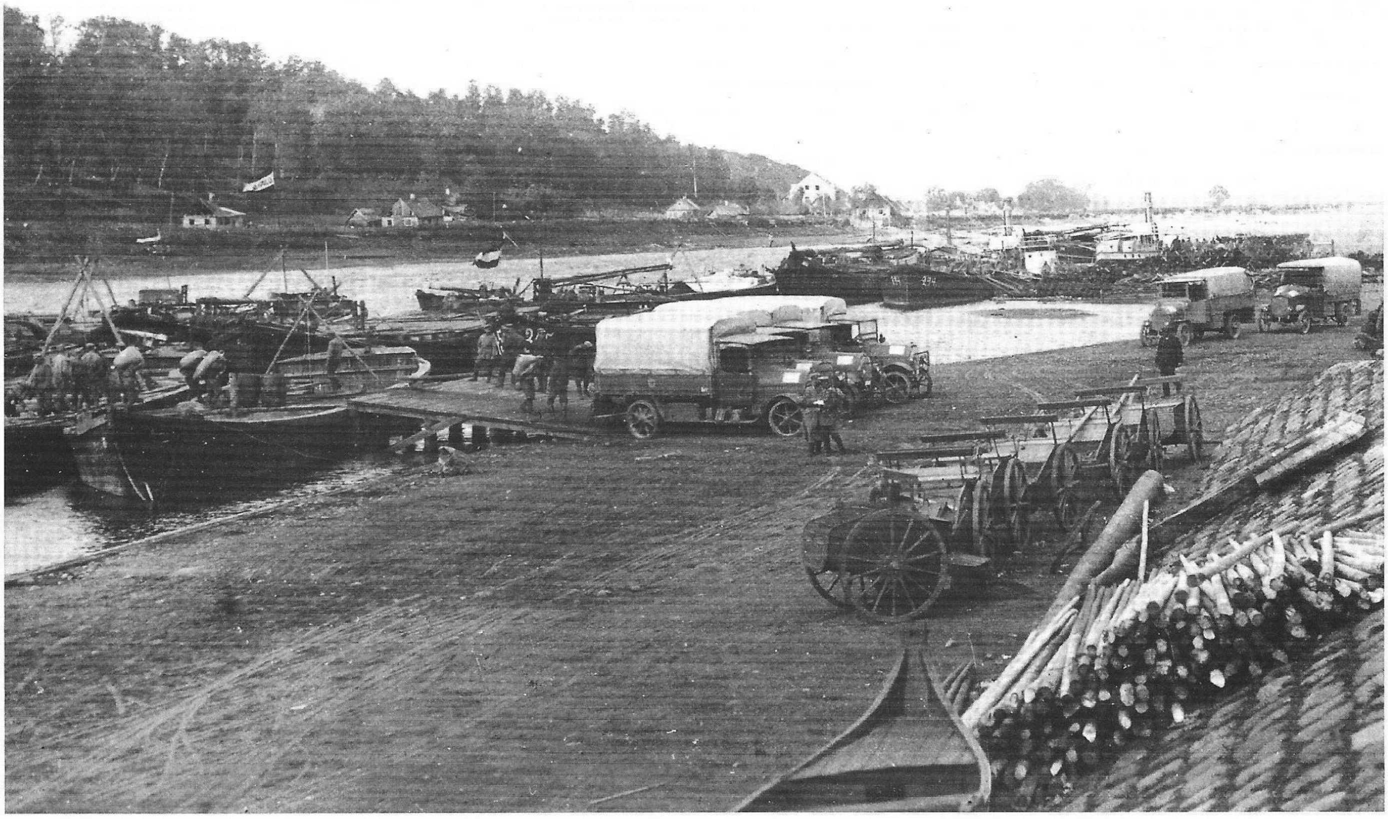
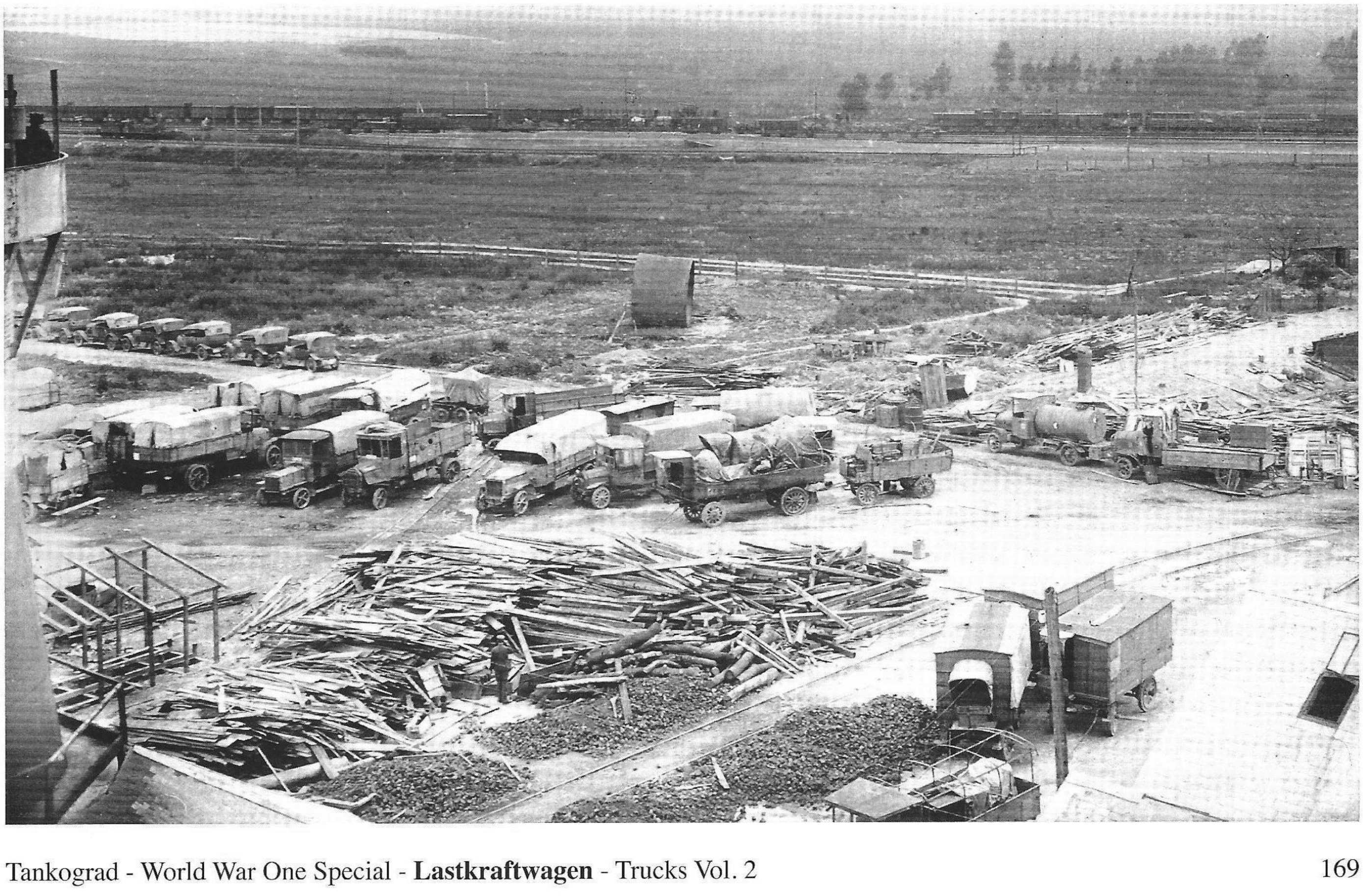
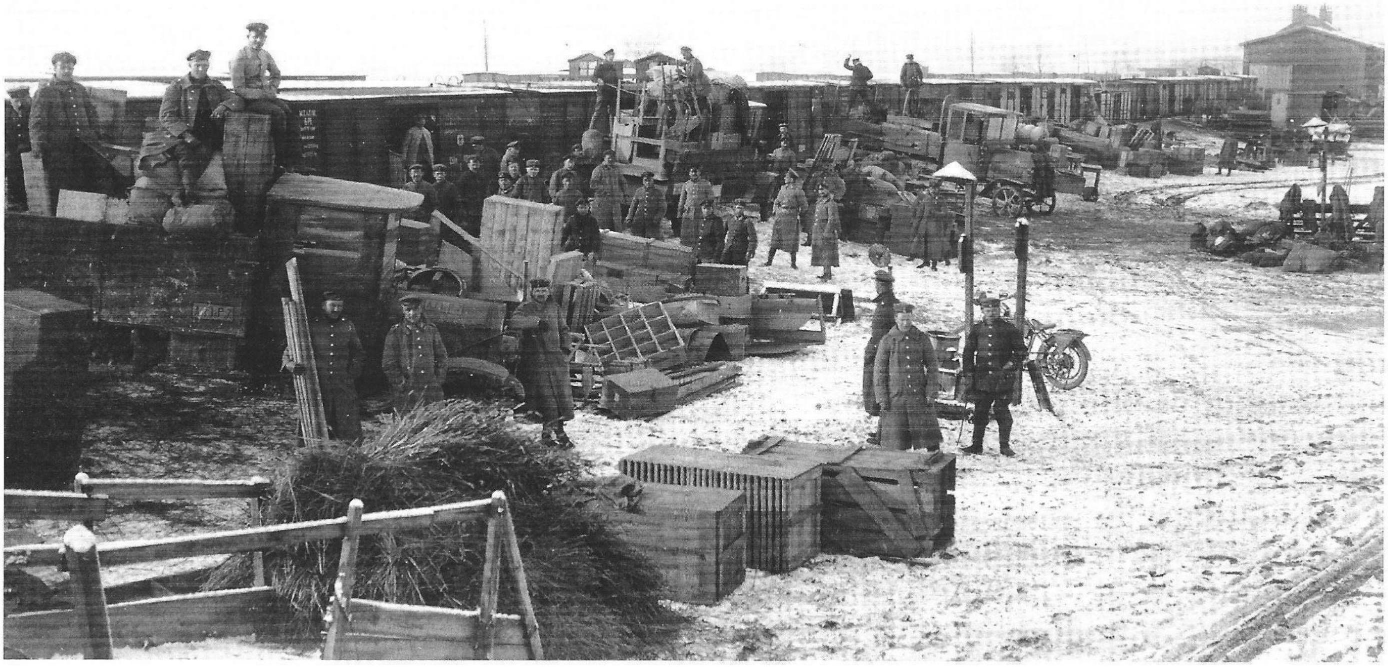
The Imperial German Army trialled truck designs continually since 1899 in an effort to find the best solutions to equip its units. This culminated in the massive comparative trials held for the *Armeelastzüge* in 1908-12. After war had broken out, trials regarding motor vehicles did not stop, yet they were carried out at the unit level such as in rear-echelon motor vehicle parks. This photo shows one of the wartime technical trials, in this case held by the *Versuchsabteilung* (experimental detachment) of *Immobiles-Kraftwagen-Depot 8* that was located in the *Reichsgebiet*, more precisely in the district of Berlin (note the '*MK III*' licence plate). Credit: Jochen Vollert Collection

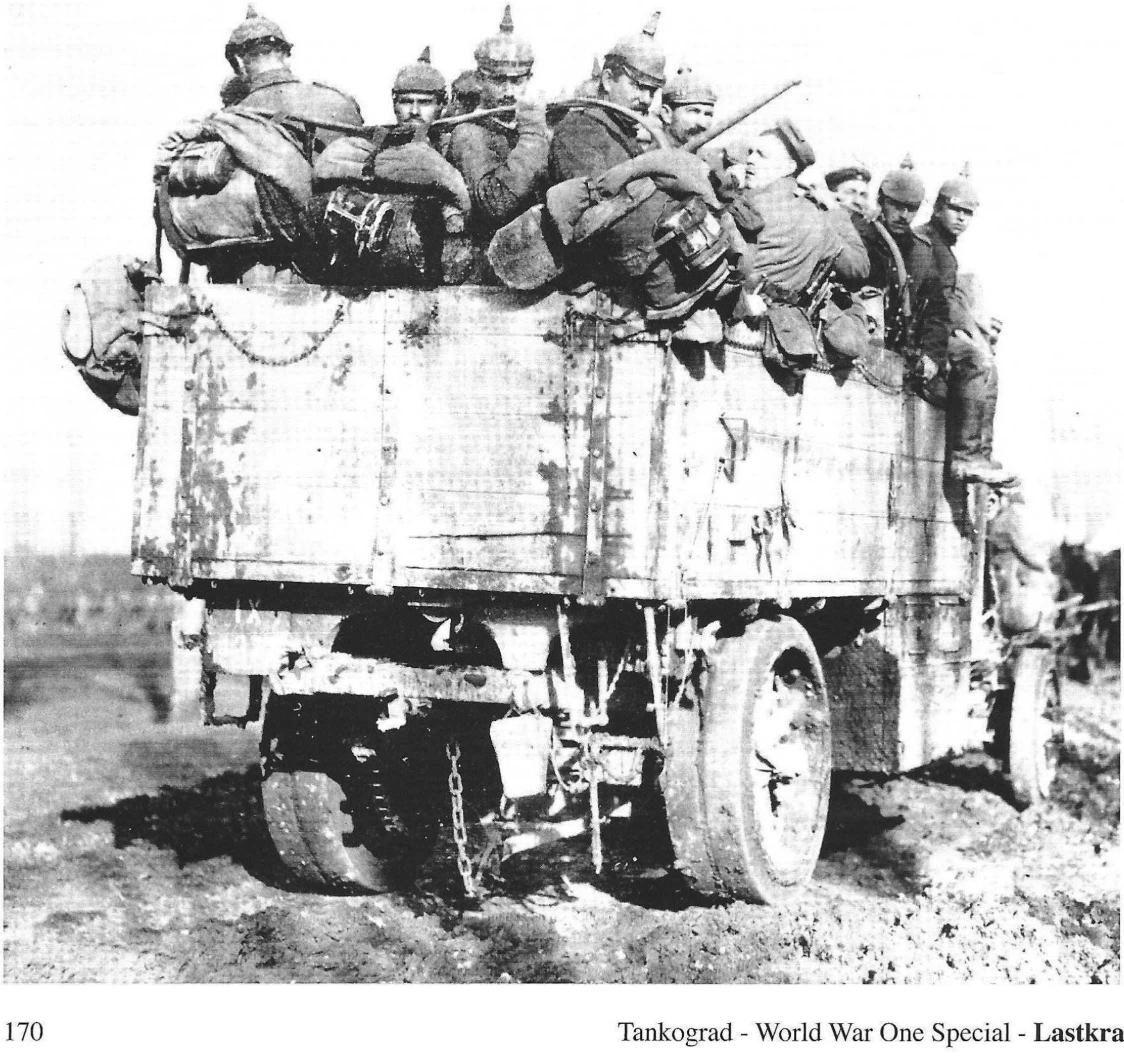


Bulk goods arrived behind the frontlines by railroad or by barge, and had to be hauled from these logistic heads towards the frontlines to be distributed to individual formations and units. The responsibility for this crucial war effort lay with the *Kraftfahrtruppe* that established loading and unloading zones, warehouse facilities and open storage places all along the Western and Eastern fronts. Once more note the unbelievable smorgasbord of passenger cars, trailers, truck types and makes. Note the four Opel trucks next to the barges in the upper photo, and the Mannesmann-Mulag *Heereswagen* on the far right. A 1914-model military Büssing, as well as a 1913-16 impressed civilian Büssing can be identified in the lower picture.
Credit: Jochen Vollert Collection

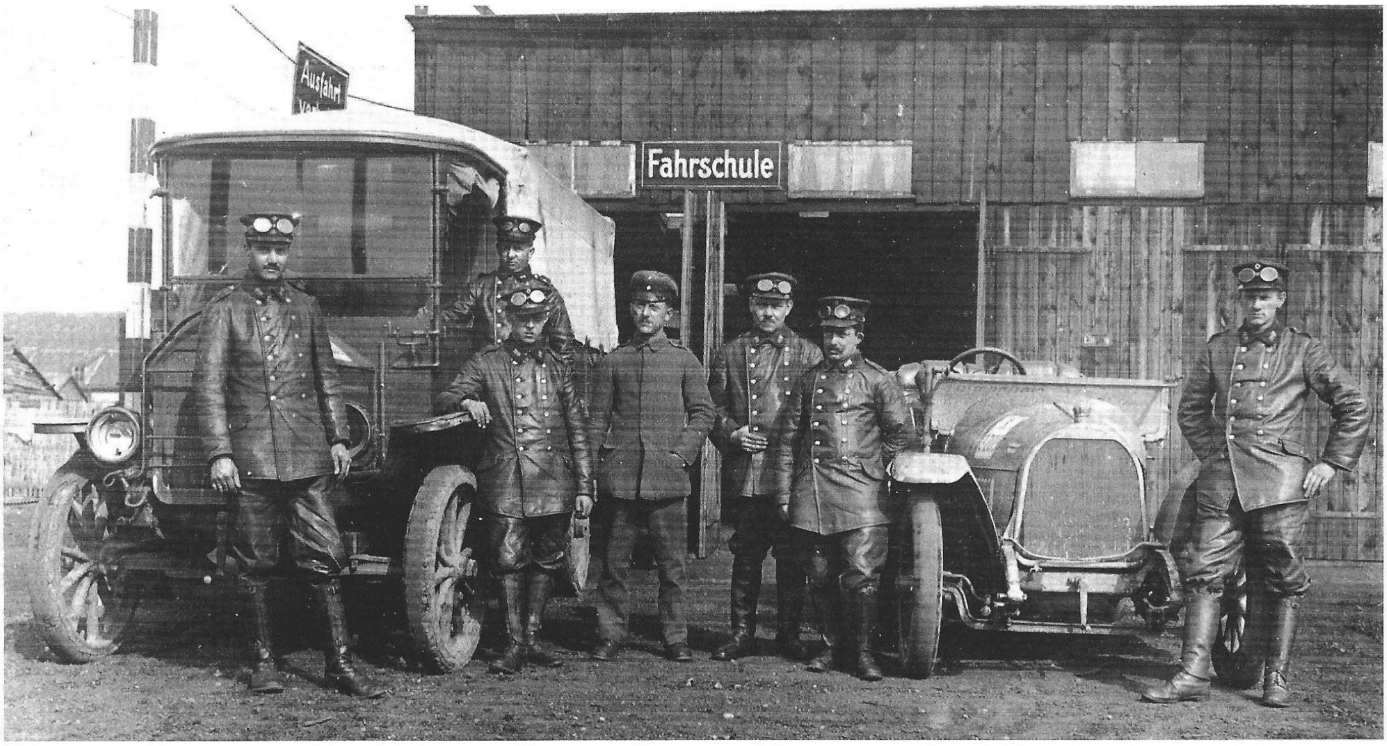




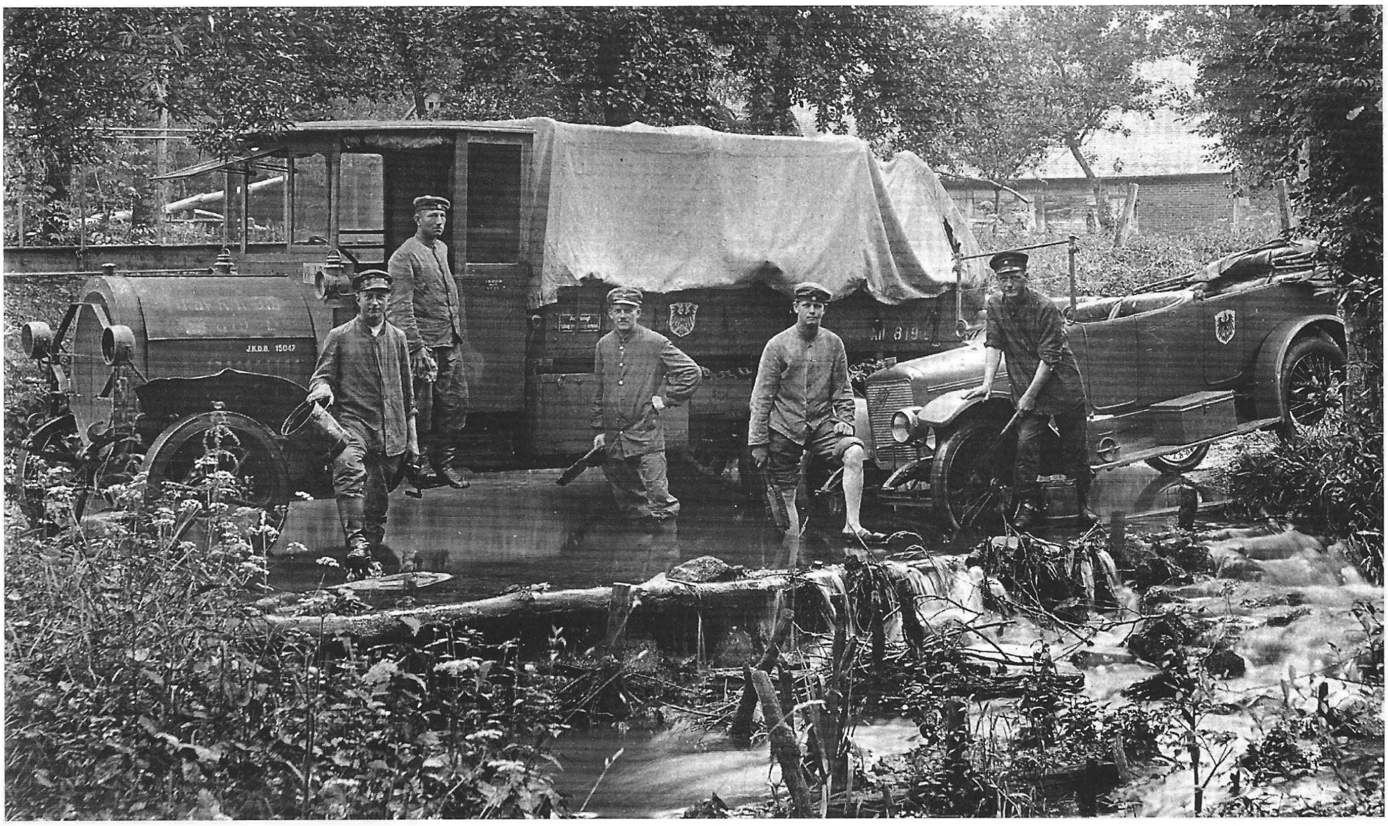
Transloading crated office furniture and supplies directly from railroad wagons onto waiting trucks of *Armee Flug Park 7*.
Credit: Jochen Vollert Collection



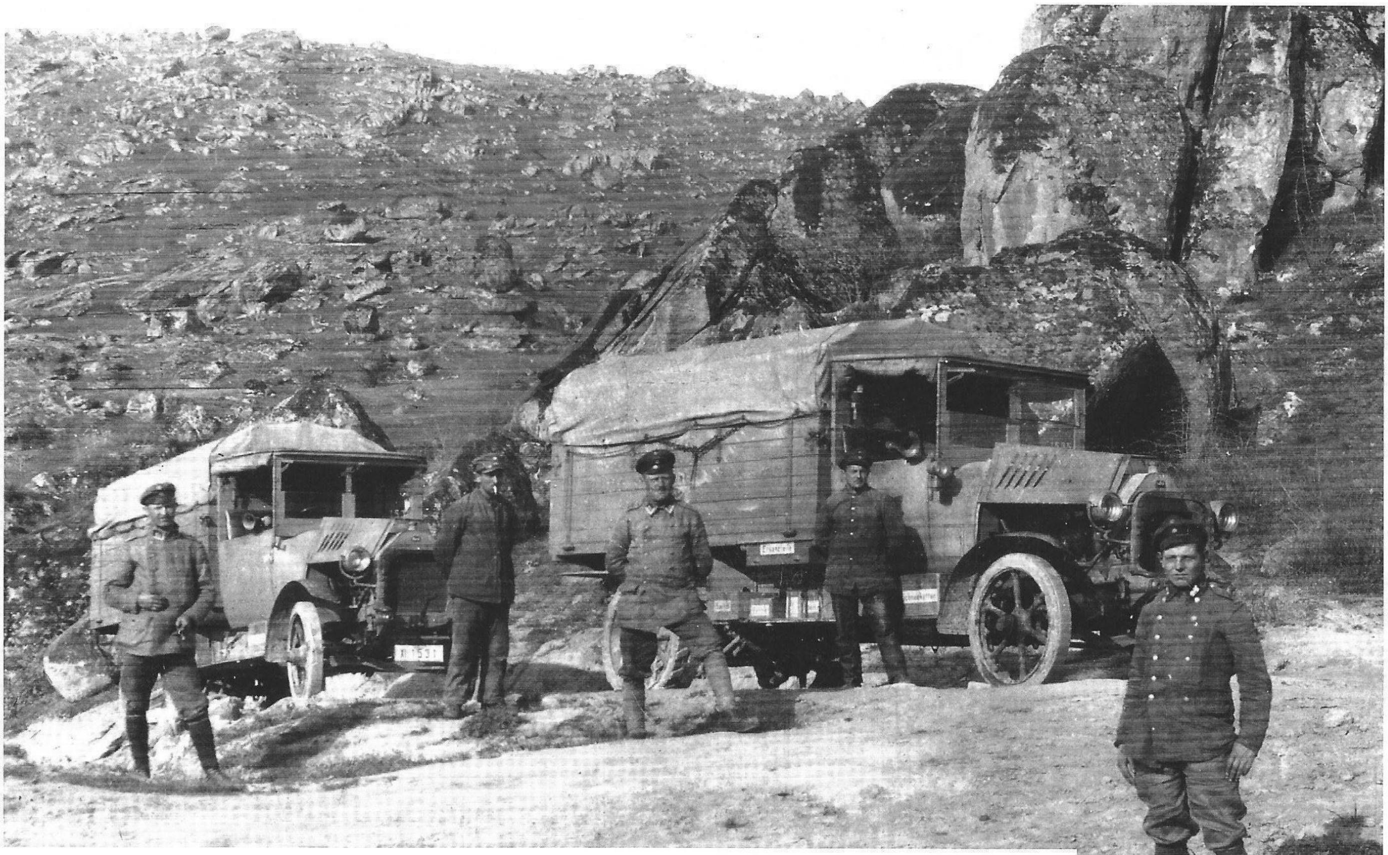
When no railroad unloading facility was close by and the soldiers could not march on foot to the frontlines, trucks were required to haul the most precious supplies of all, soldiers. A 3-ton to 4-ton truck could easily manage to give 20-35 soldiers a lift, even if travelling comfort was not part of the vocabulary in those days.
Credit: Jochen Vollert Collection



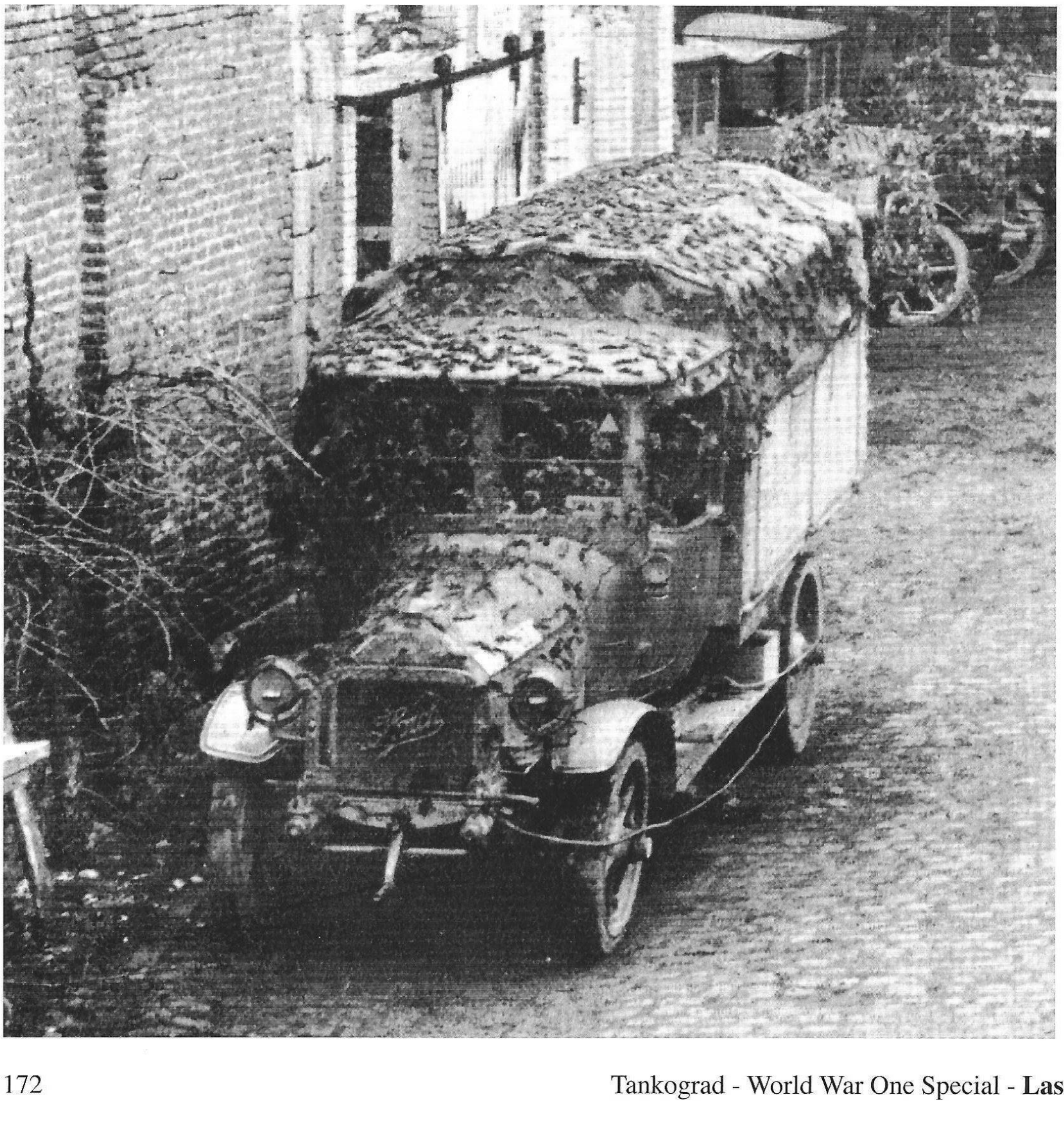
Despite the fact that from October 1911, in connection with the creation of the *Kraftfahr-Bataillon*, a basic military driver-training establishment had been founded, in the first year of the war, civilian drivers were purposely drafted to serve with the *Kraftfahrtruppe* as they already had a basic understanding of the new technology and the necessary skills to operate a motor vehicle safely. With the war not ending "by Christmas", it became necessary from 1915 to create more *Fahrschule* driver instruction schools to familiarise the soldiers required to man more and more trucks arriving according to the industrial war effort. There were no specific driver instruction vehicles, so one learned the basic trade on regular trucks and passenger cars. This photo is one of the actual but very few visual proofs of the existence of the *Fahrschulen*. The truck is a Benz, and the passenger car an Opel. Credit: Jochen Vollert Collection



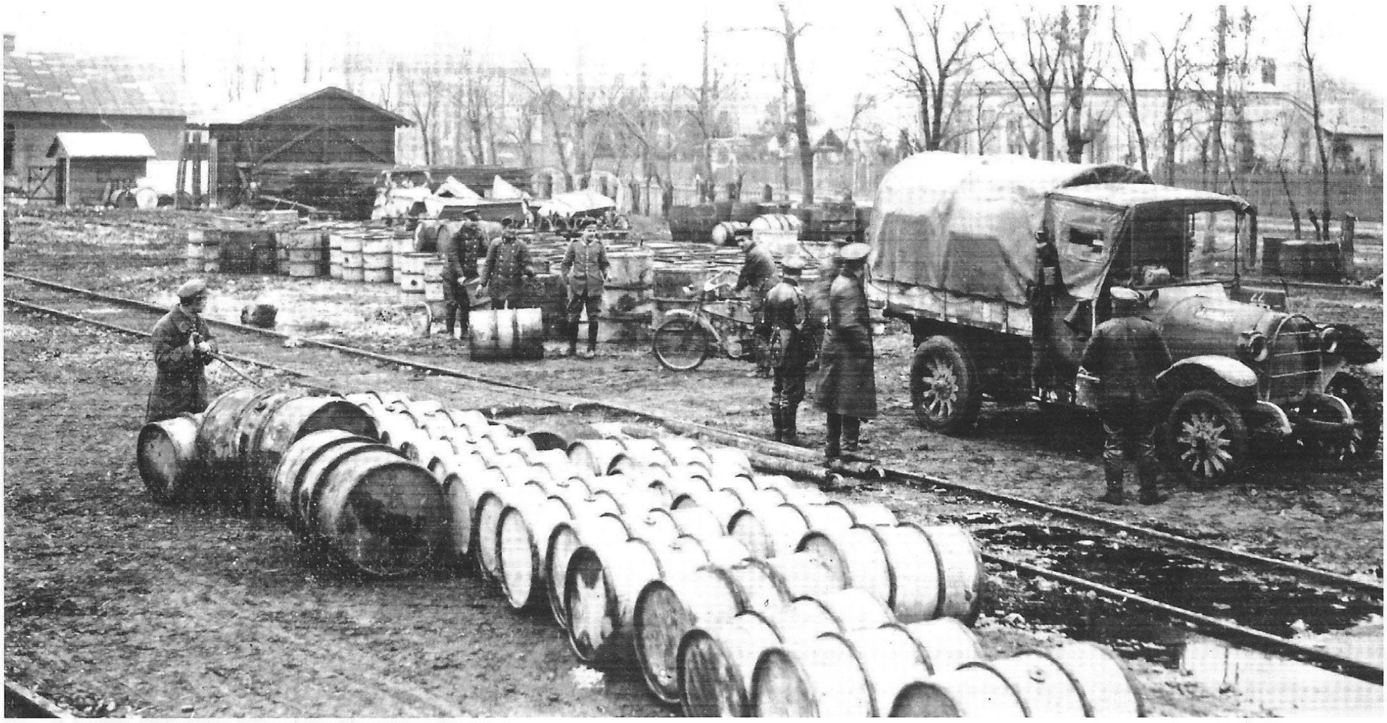
With trucks in general and spare parts in particular in short supply on the German side throughout the war, drivers were instructed to keep their vehicles in perfect running order and even spotless in appearance. Washing a military truck that has to blend into its environment sounds like a contradiction in terms, yet the Teutonic sense of order and cleanliness held true particularly in the *Kraftfahrtruppe*. Here an Adler passenger car and an NAG truck have been taken to a nearby river for *Kfz-Waschtag* (motor vehicle "laundry" day). Credit: Jochen Vollert Collection



In 1917 the Imperial German *Südarmee* fought alongside its Austrian allies against the Italians on the Isonzo Front in the Alps. Pictured in this photo is a German supply column of the 11th Army on its way through the mountainous region. The steep climbs caused the engines to overheat; note the open engine bay side panels with Horch's typical five angled louvres.
Credit: Jochen Vollert Collection

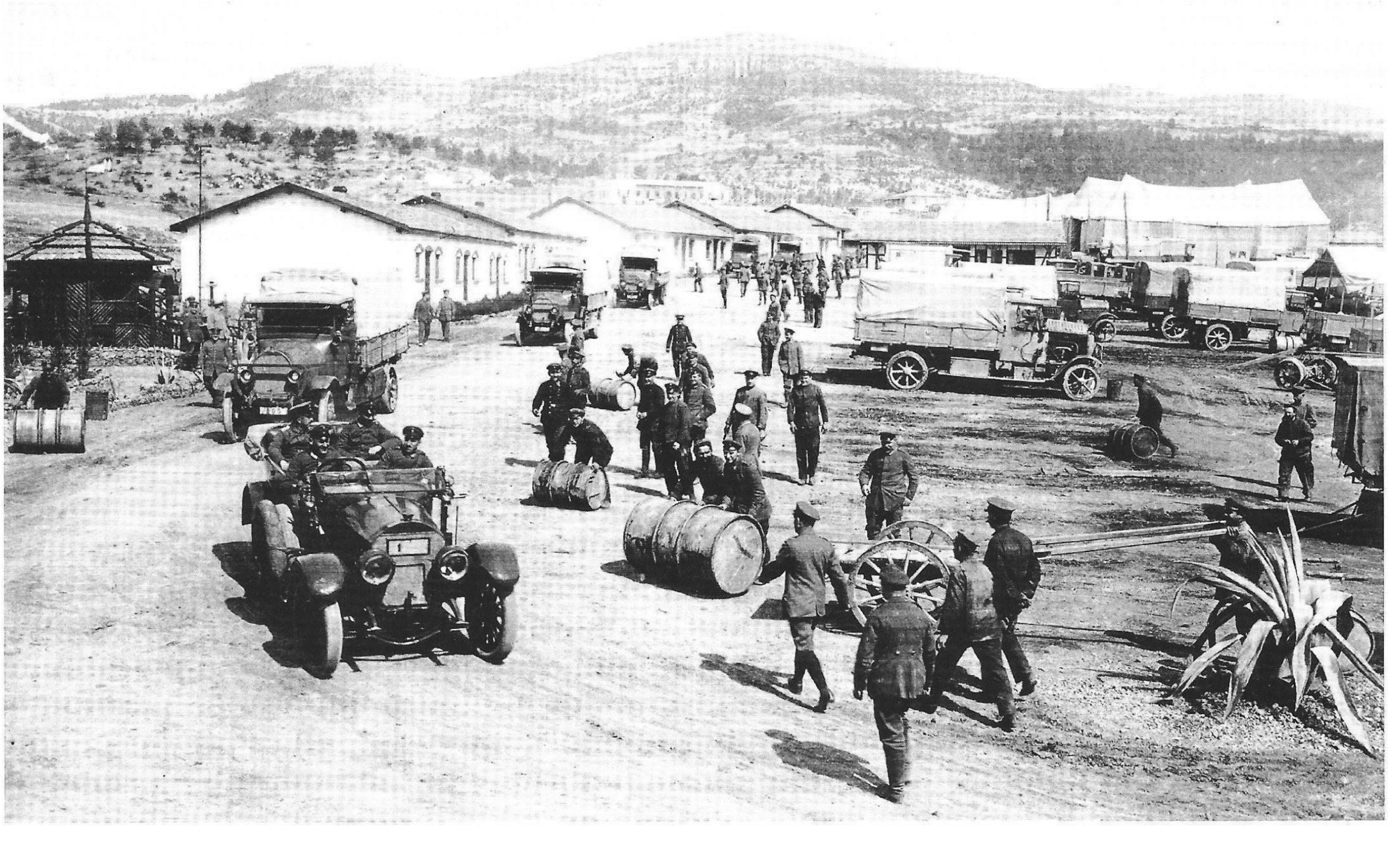


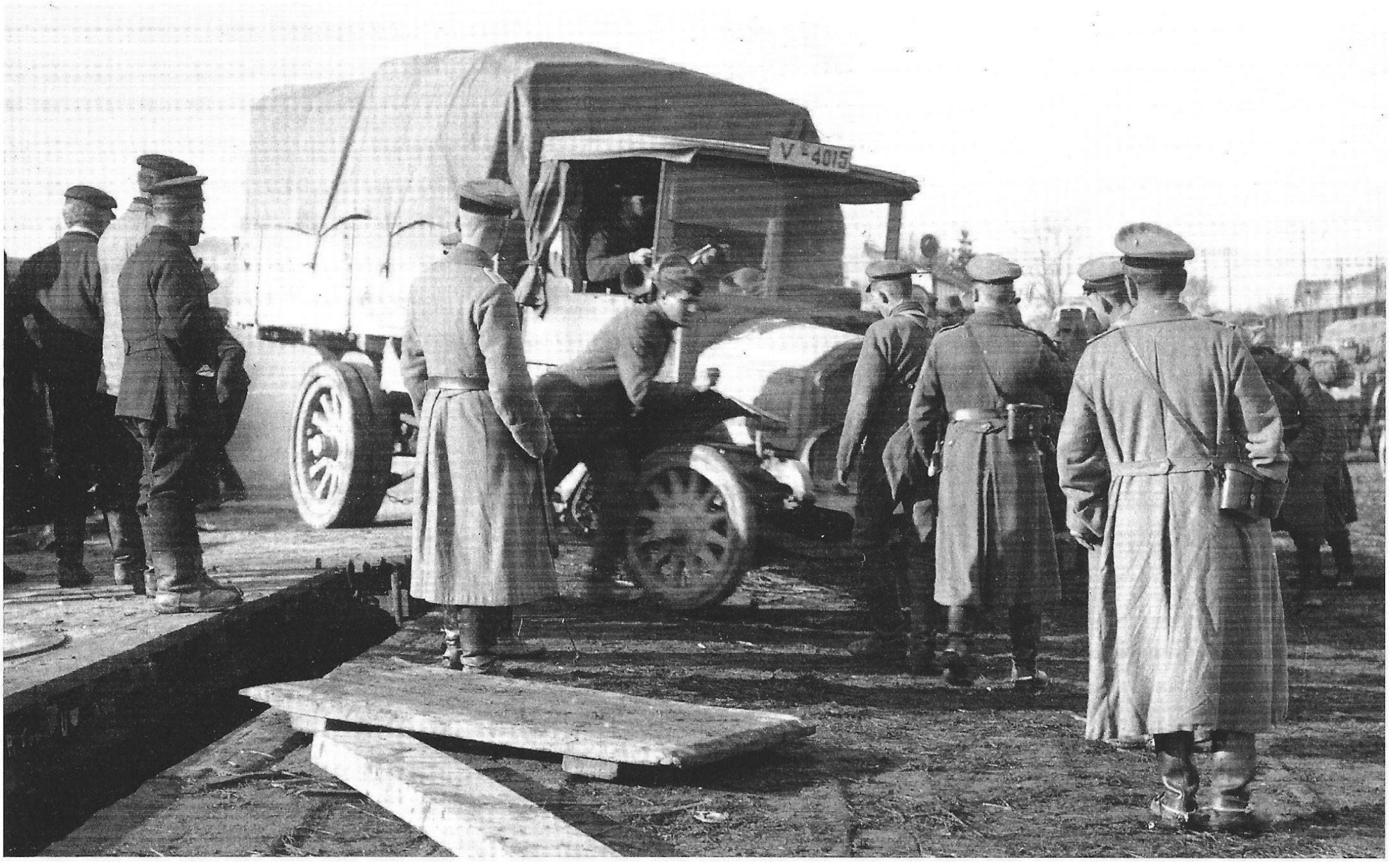
Towards the end of the war, British and French air superiority kicked in. A new invention, the *Tarnnetz* camouflage net for trucks, was introduced to counter detection from the air. This is once more a Horch *Heereswagen* truck.
Credit: Jochen Vollert Collection



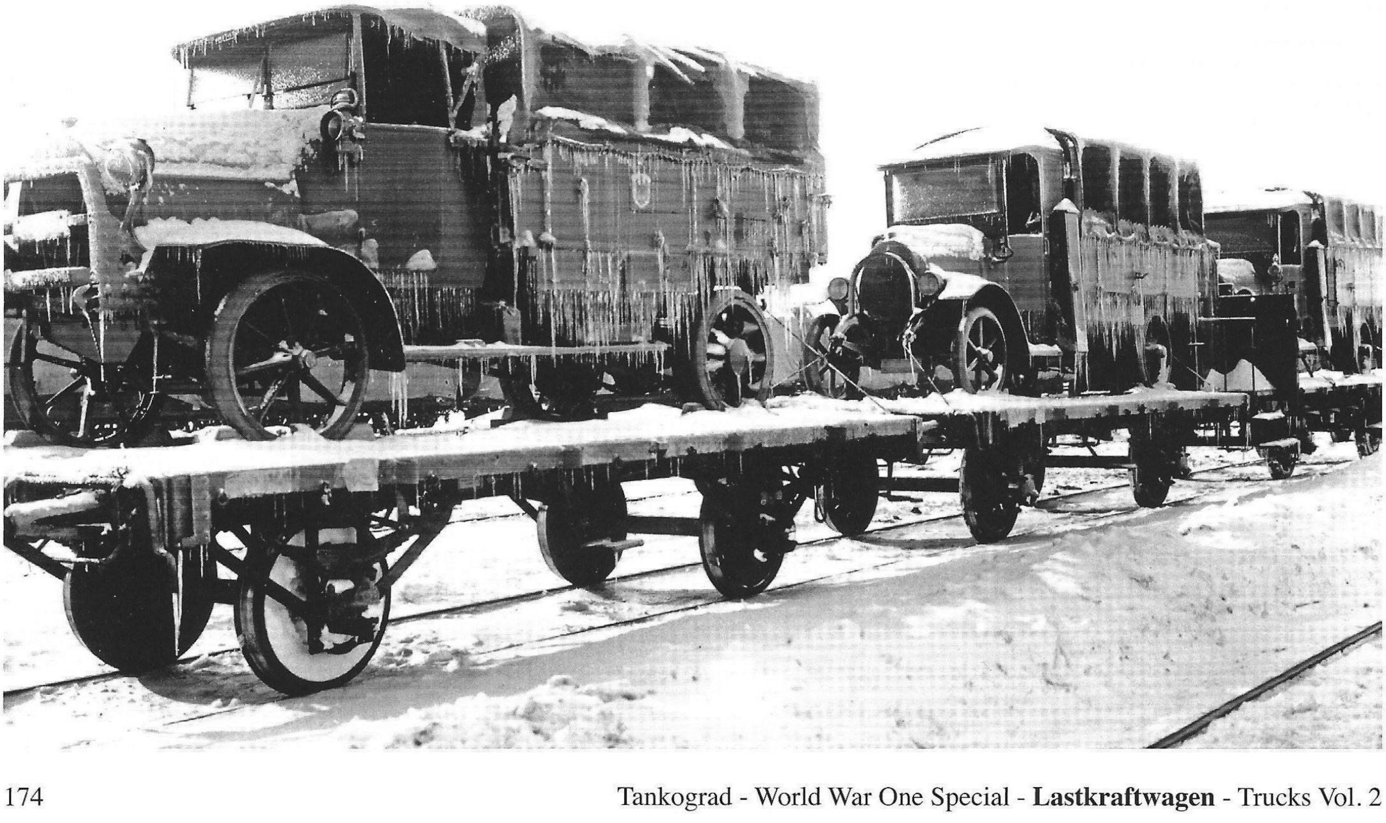
At the time of the Great War, there had been very few fuel stations in Germany, and even less in the occupied territories. In consequence, refuelling had to be carried out in the field using fuel drums and muscle power. Single trucks or entire units would show up to be refuelled such as in France (above) or Turkey (below). ***Immobile Tankstellen*** **(stationary fuel stations) were attached to all immobile motor parks. In addition, each corps and independent division was to have its own** ***Bewegliche Tankstelle*** **(mobile fuel station) that was to relocate with its own unit to new positions. Cavalry divisions were dependent on neighbouring corps or divisions. Mobile fuel stations had to drive back to the** ***Etappen-Kraftwagen-Park*** **or major storage locations for refuelling, yet they needed to make sure that one mobile fuel station was always operational. A** ***Bewegliche Tankstelle*** **comprised one truck, one junior NCO plus 3 tonnes of petrol in oil drums, 200kg of oil, 20kg of grease, 100kg of carbide, 20kg of cotton waste, 30kg of petroleum and 250kg of rubber spare parts. All this made up three days' worth of supplies for an army corps (this was a peacetime calculation; it could be more in wartime conditions). To operate fuel stations, filling equipment such as fuel pumps, buckets, funnels and lamps for night-time operations were available. All** ***Tankstellen*** **had to be marked by a sign or flag in yellow with black lettering reading '*****Betriebsstoffe für Kraftfahrzeuge*****' (operating supplies for motor vehicles). Each motor vehicle of the army was permitted to use these** ***Tankstellen*****. The light truck above is a Presto, but light trucks are part of a future publication- the motorcycle is a 2-cylinder Wanderer 4hp. The first truck of the column below is an Opel.**

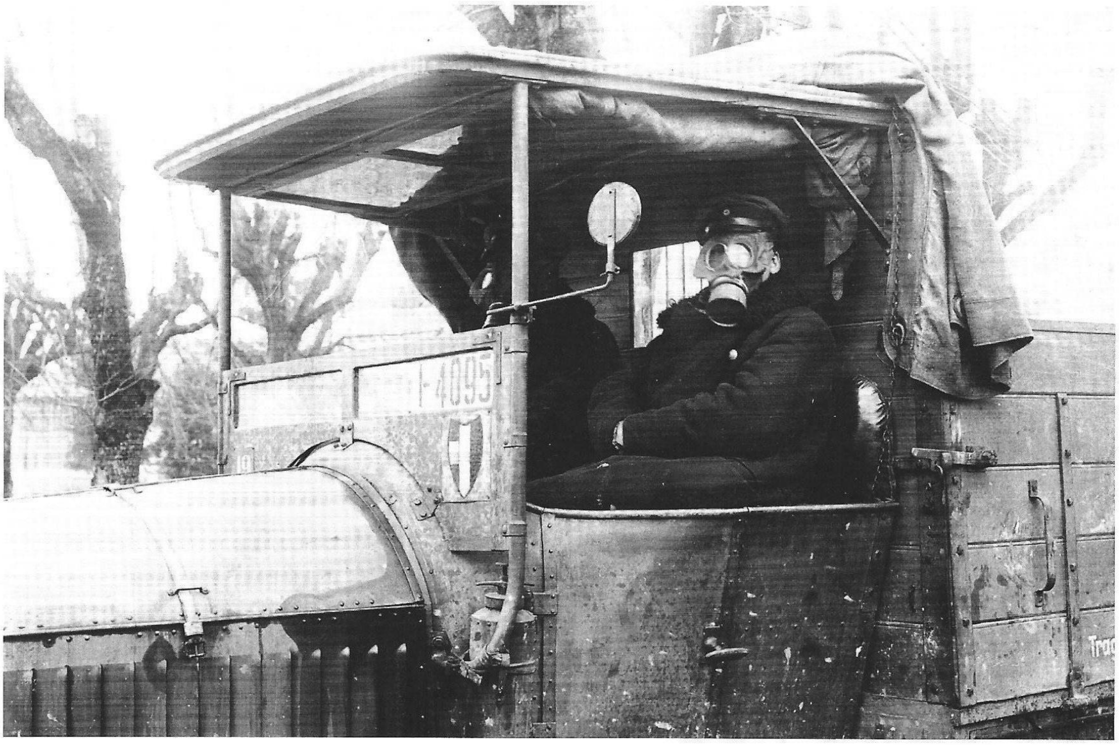
Credit: Jochen Vollert Collection



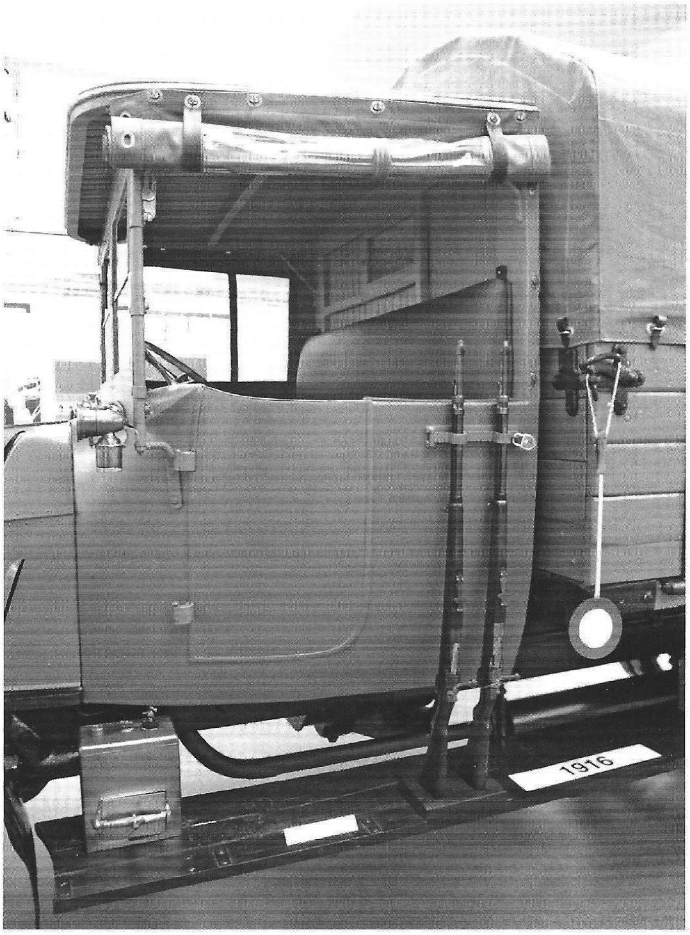


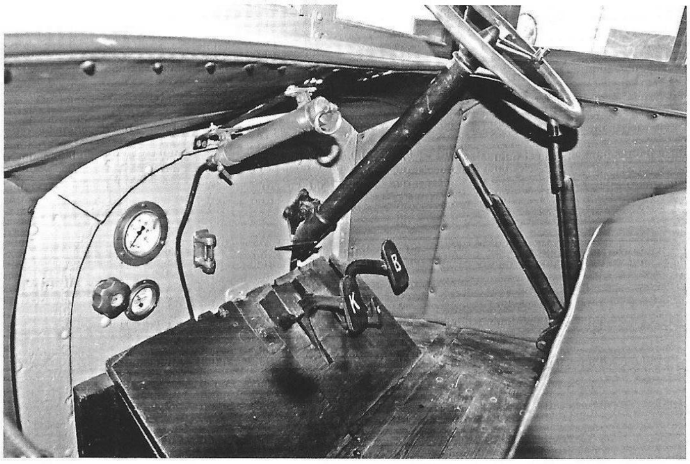
Modern-day trucks are built to haul massive loads over long distances without much wear and tear on their technical components. In the 1900-20 time period, trucks were not designed for long-distance travel, as their components would have otherwise been in constant need of repair or even replacement. It was therefore common procedure to deliver not only supplies over long distances by railway, but also trucks themselves. Such an occasion could happen when the unit relocated to a theatre of operations hundreds of kilometres away, or if new or damaged vehicles had to be moved between frontlines and main repair facilities often linked to manufacturer sites in the *Reichsgebiet*. Training railroad loading and unloading procedures was therefore one of the more common tasks for all drivers. The truck on the photo above is a Saurer, below a Windhoff and a Dürkopp.
Credit: Jochen Vollert Collection

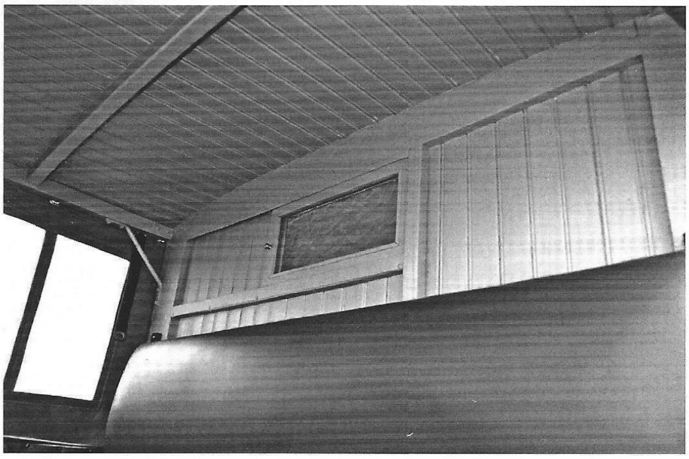




Last but not least a look at the drivers' workspace. The closed hardtop cabs provided reasonable protection against foul weather yet could not be closed entirely. The upper parts of the sides remained open to provide fast escape under attack or during an accident. A protective tarpaulin with a transparent section could be lowered during rain or snowfall. Although the risk of getting caught in a gas attack was limited behind the frontlines, the crews nevertheless had to be equipped with gasmasks as demonstrated here so well. Credit: Jochen Vollert Collection



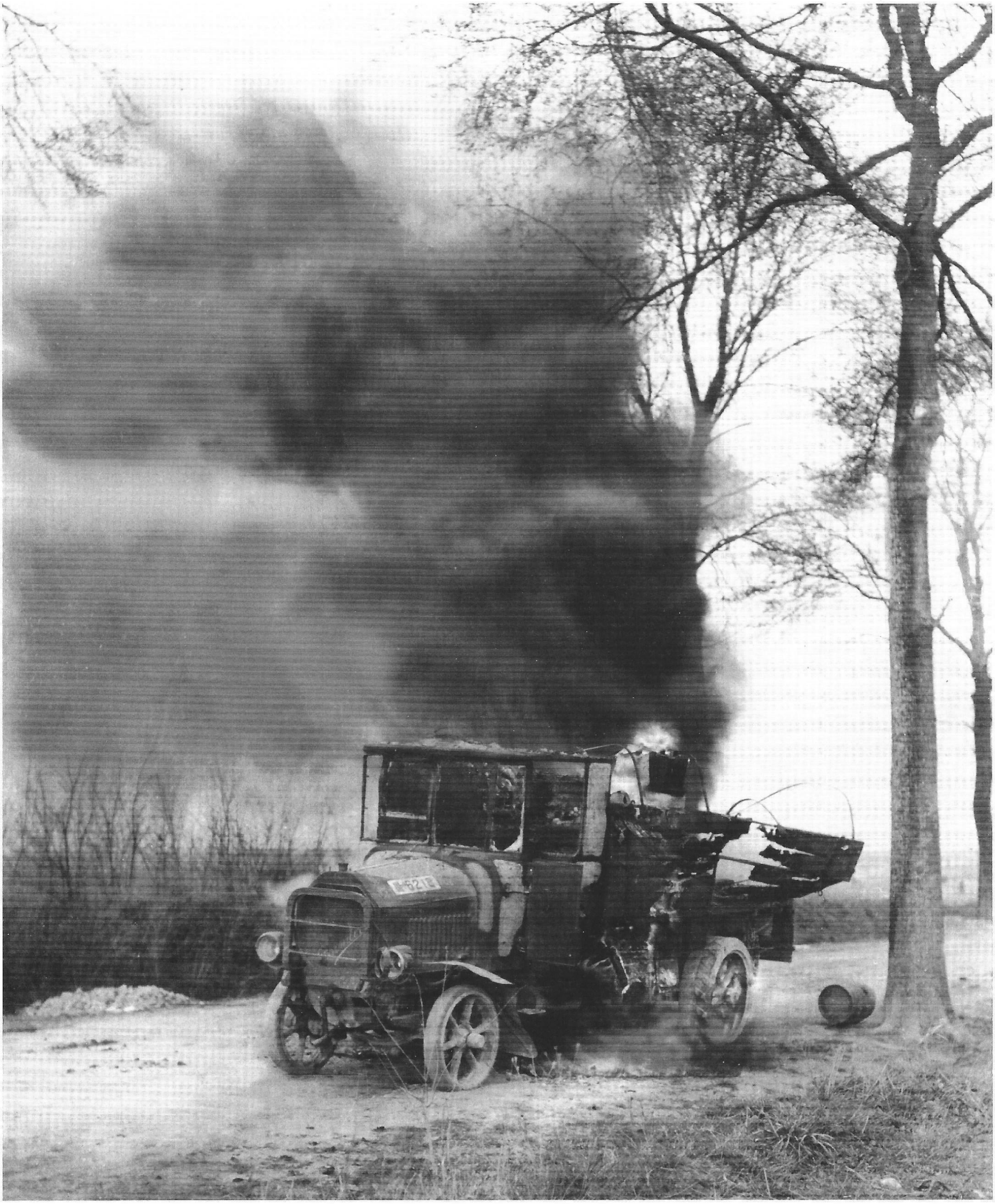




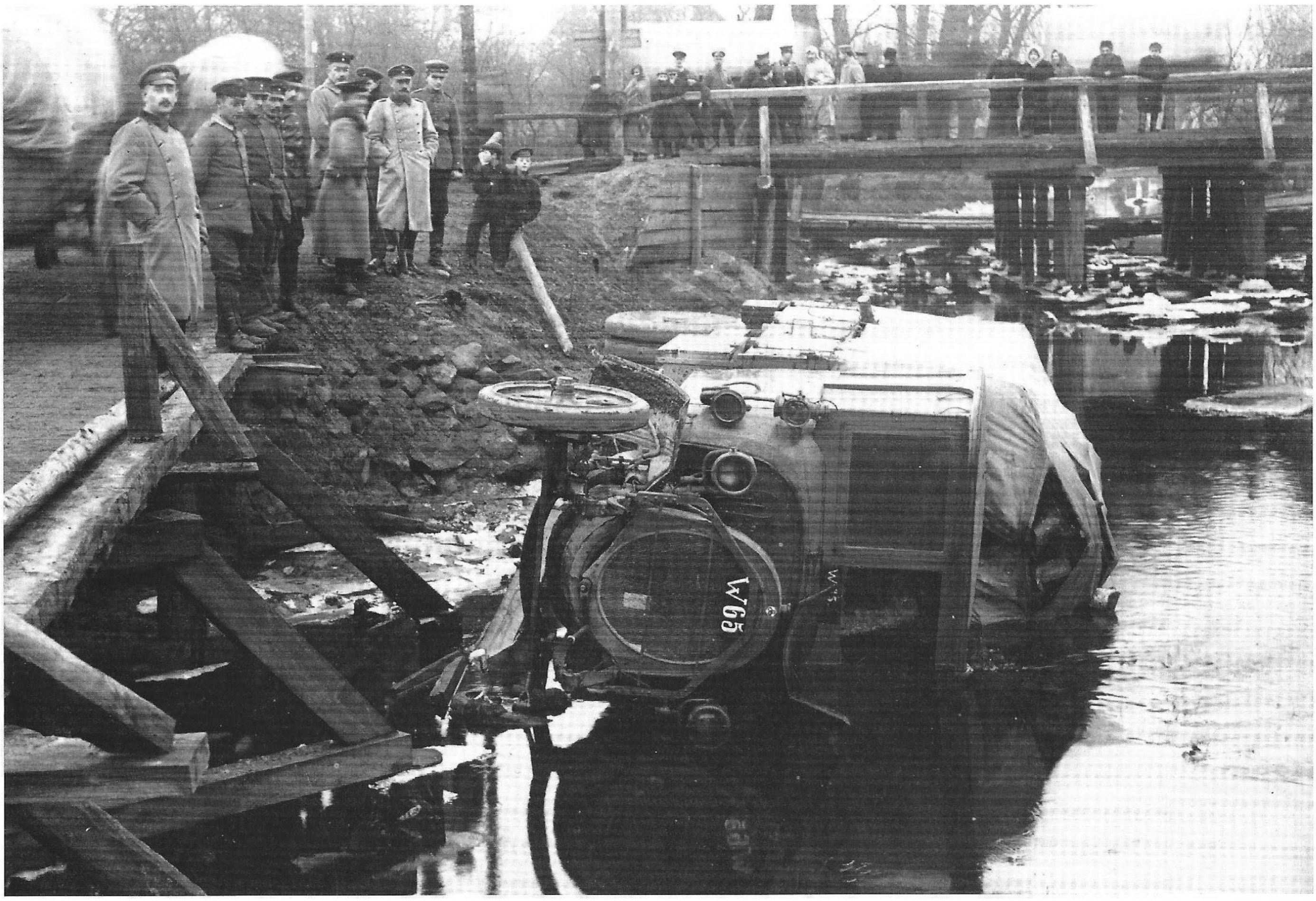
There is a number of World War One trucks surviving in private hands today, many of them in France. Yet it needs to be noted that due to the complete absence of any surviving factory drawings, technical manuals and detailed photos, the restorations, as admirable as the are, can only be close approximations and might use post-war spare parts. In consequence photos of these survivors are not part of this documentation. In Germany there are today only few survivors in museums, one of which is this 3-ton in the Horch-Museum in Zwickau. Based on the fact that it was restored at its production facility, the photos above should show a realistic approximation of the drivers' workspace inside the cab. '*K*' means *Kupplung* (clutch) and '*B*' means *Bremse* (brake). Note the absence of a dashboard. The use of just a rifle clip on the outside the cab was a rare occasion as the weapons would get dirty and therefore unusable soon. Overall the truck has a "super mint condition" look that sadly is quite unrealistic. Credit: Jochen Vollert

06.

Unfälle, Bergung und Reparatur
Accidents, Recovery and Repair

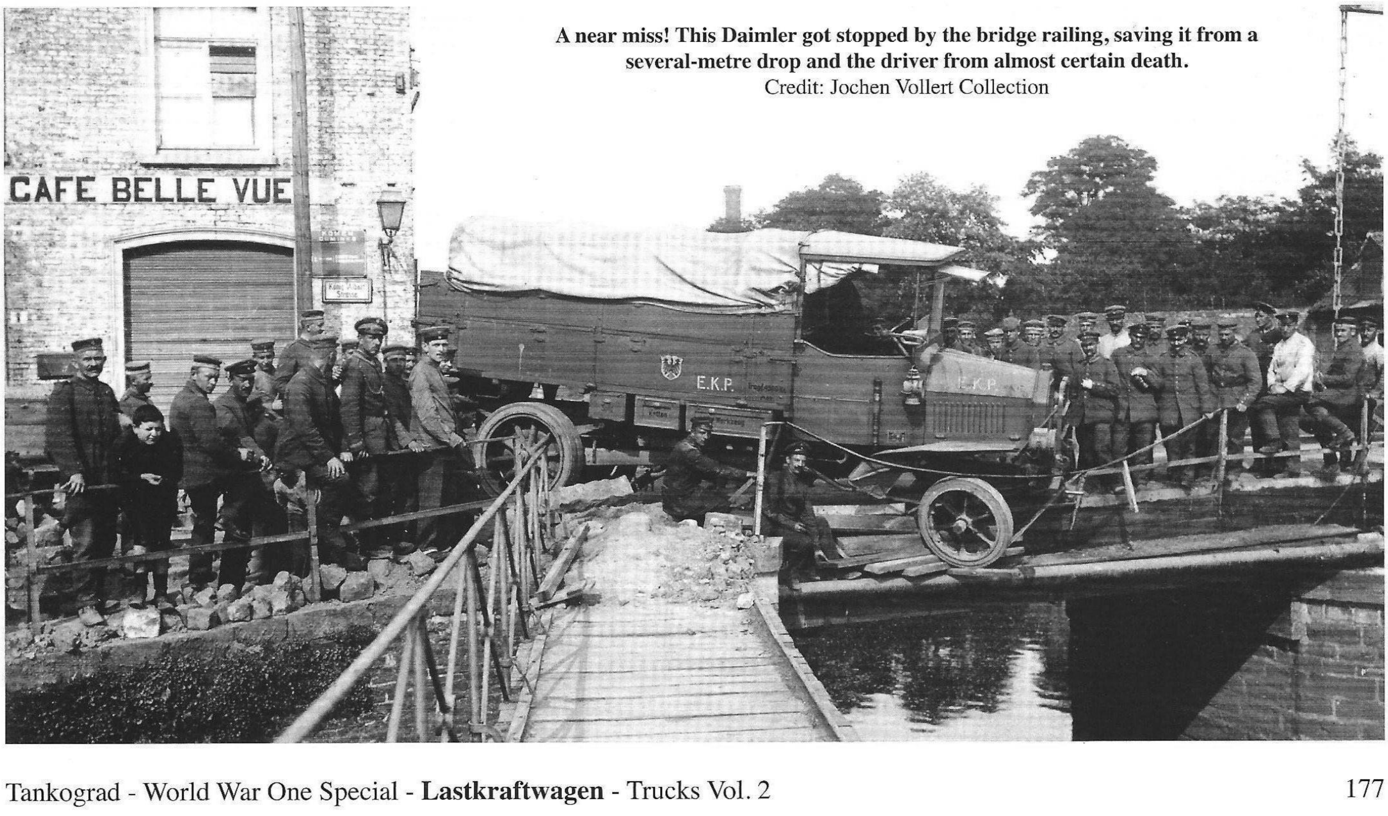


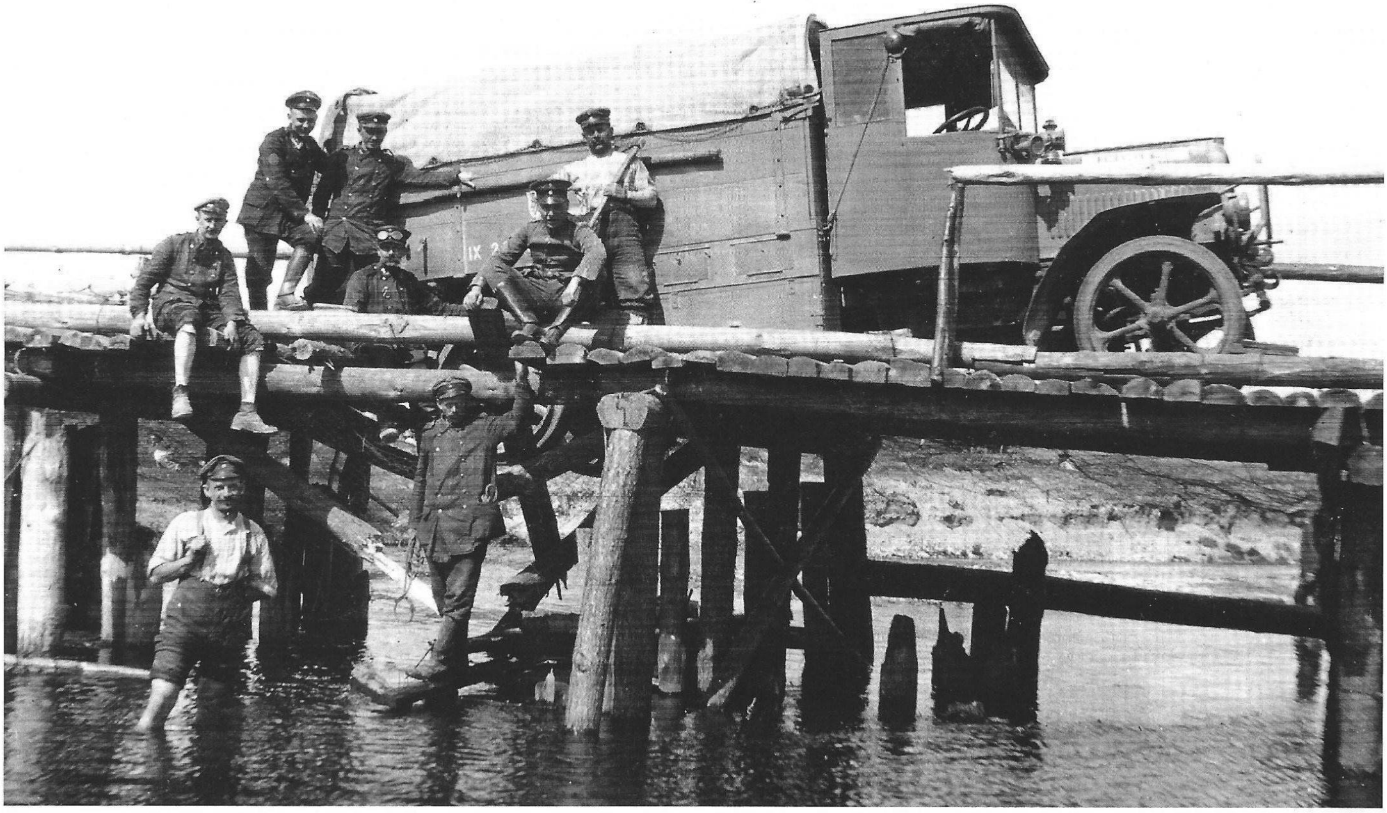
Either a direct hit by enemy artillery or the load caught fire by itself or via enemy intervention. This Daimler *Heereslastwagen* of 3rd Army is a complete write-off. The crew has escaped, as the open assistant driver's door indicates. Credit: Jochen Vollert Collection



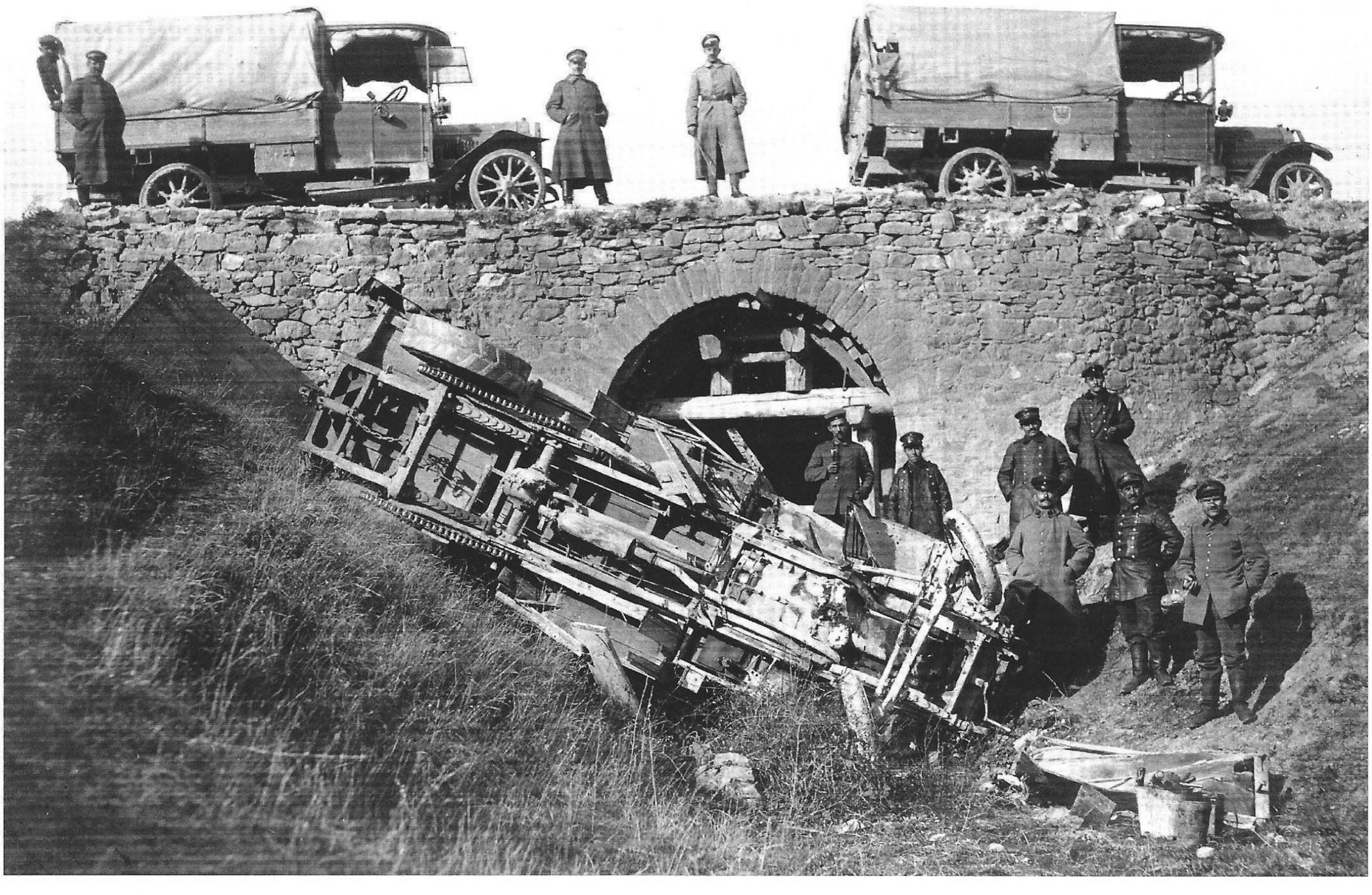
Even if the photo on the previous page is a dramatic one, the bulk of all accidents involving German trucks in World War One were of a less drastic cause. Nevertheless, they might not always end with a near escape. There was no network of hard roads on the Eastern Front or outside major towns in the occupied territories such as northern France and Belgium. Most countryside roads instead were dirt roads that turned into slippery nightmares that caused truck drivers to lose control. A particular technical hazard were the slim solid-rubber-rimmed or even metal-rimmed wheels that offered zero grip on wet or icy surfaces. This NAG truck of *Armee-Abteilung Woyrsch* deployed to the Eastern Front has obviously slipped off an improvised bridge and landed in a river. Fortunately, the water was not deep and therefore the crew should have escaped with only minor injuries.
Credit: Jochen Vollert Collection

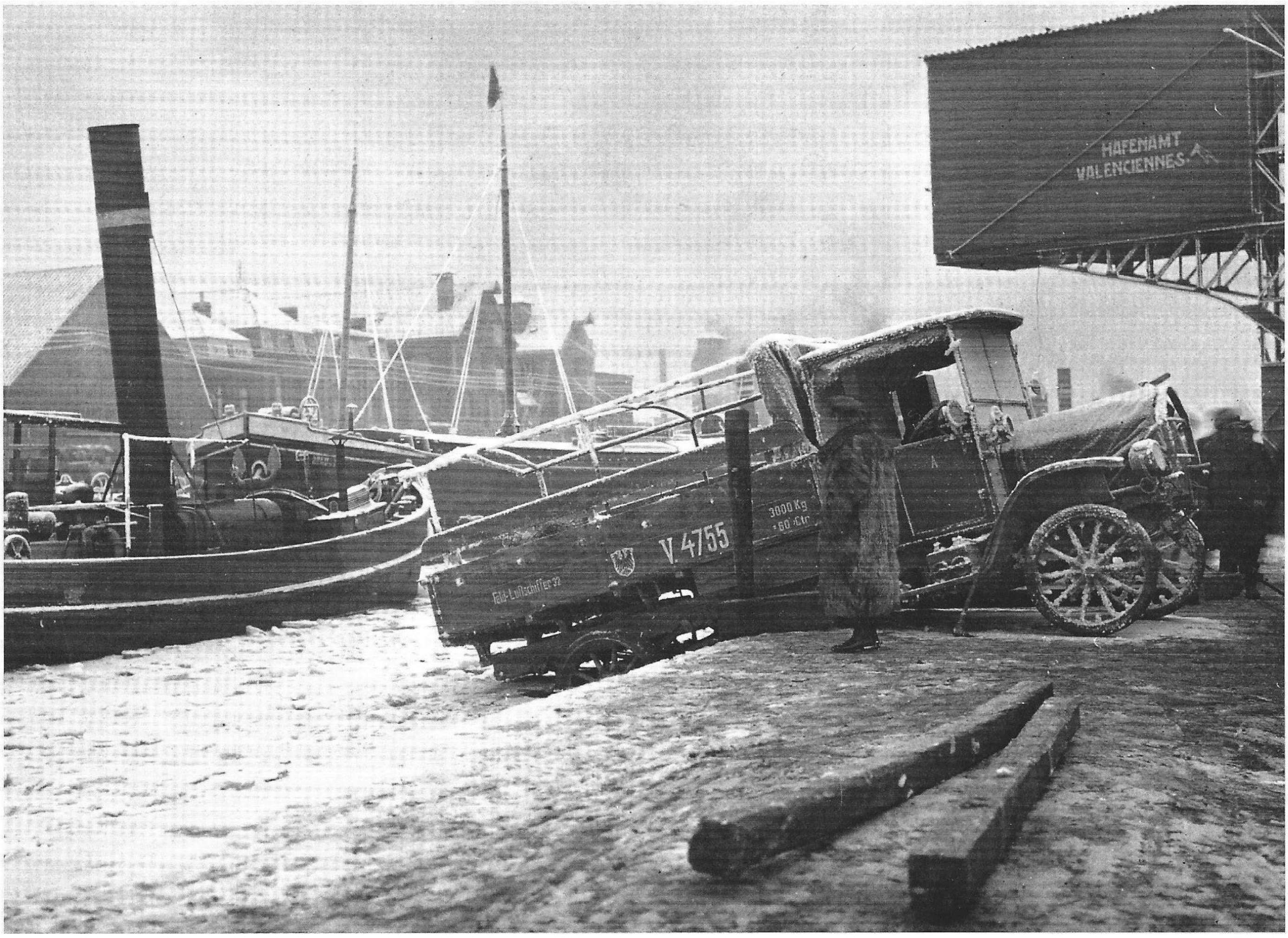
A near miss! This Daimler got stopped by the bridge railing, saving it from a several-metre drop and the driver from almost certain death.
Credit: Jochen Vollert Collection



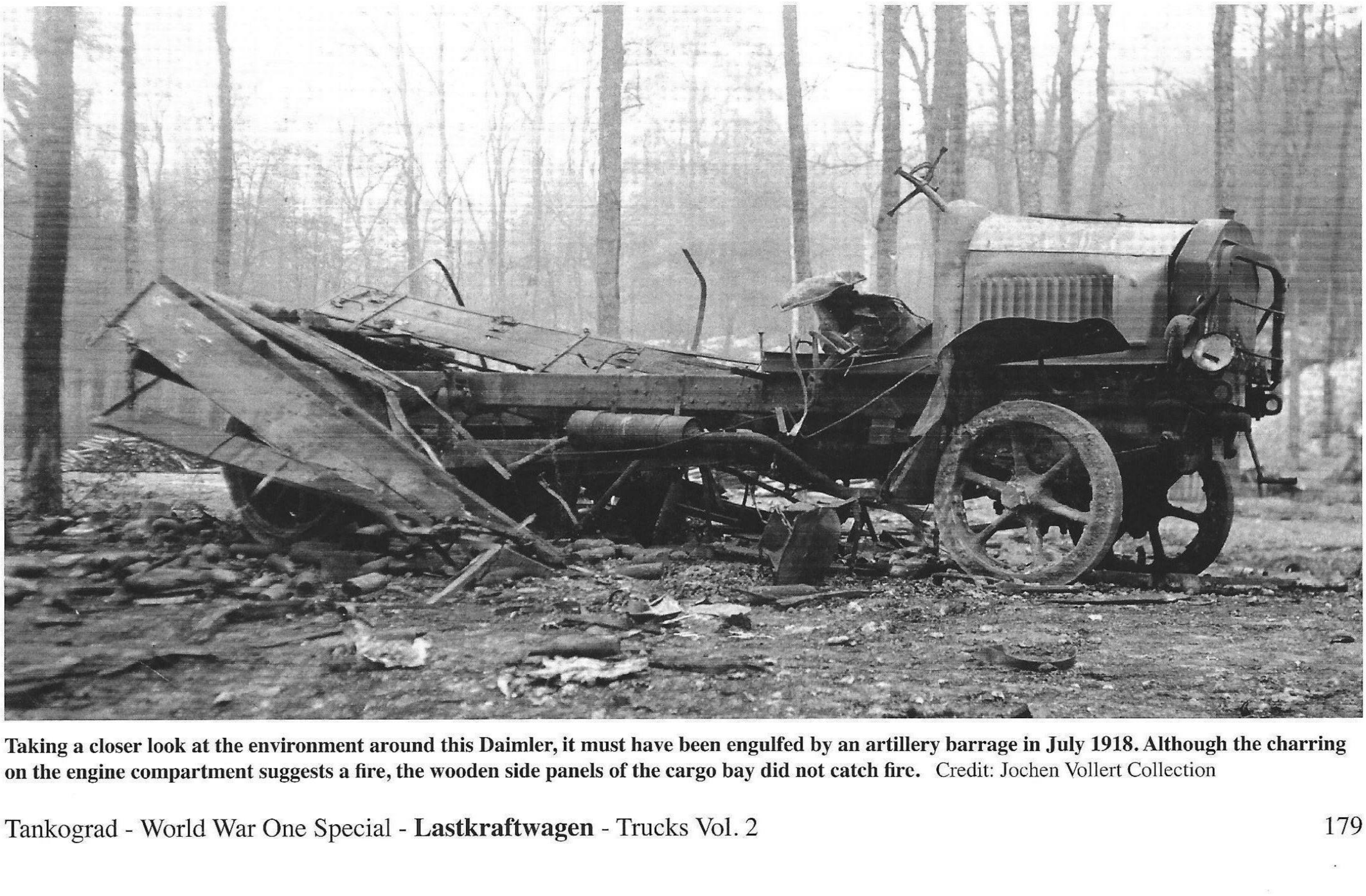


Accidents on bridges seem to have been a particularly regular occurrence. While this Adler truck of 9th Army only broke through the improvised bridge's surface with its rear axle and is now waiting for recovery, the truck in the bottom photo was not so lucky. It slipped off a stone bridge, even if equipped with anti-skid liners on the double rear wheels. The type remains unknown, as is the fate of the crew. The two vehicles on the bridge are Benz trucks, the left one with cast-iron front wheels, the right one with wooden front wheels. Credit: Jochen Vollert Collection

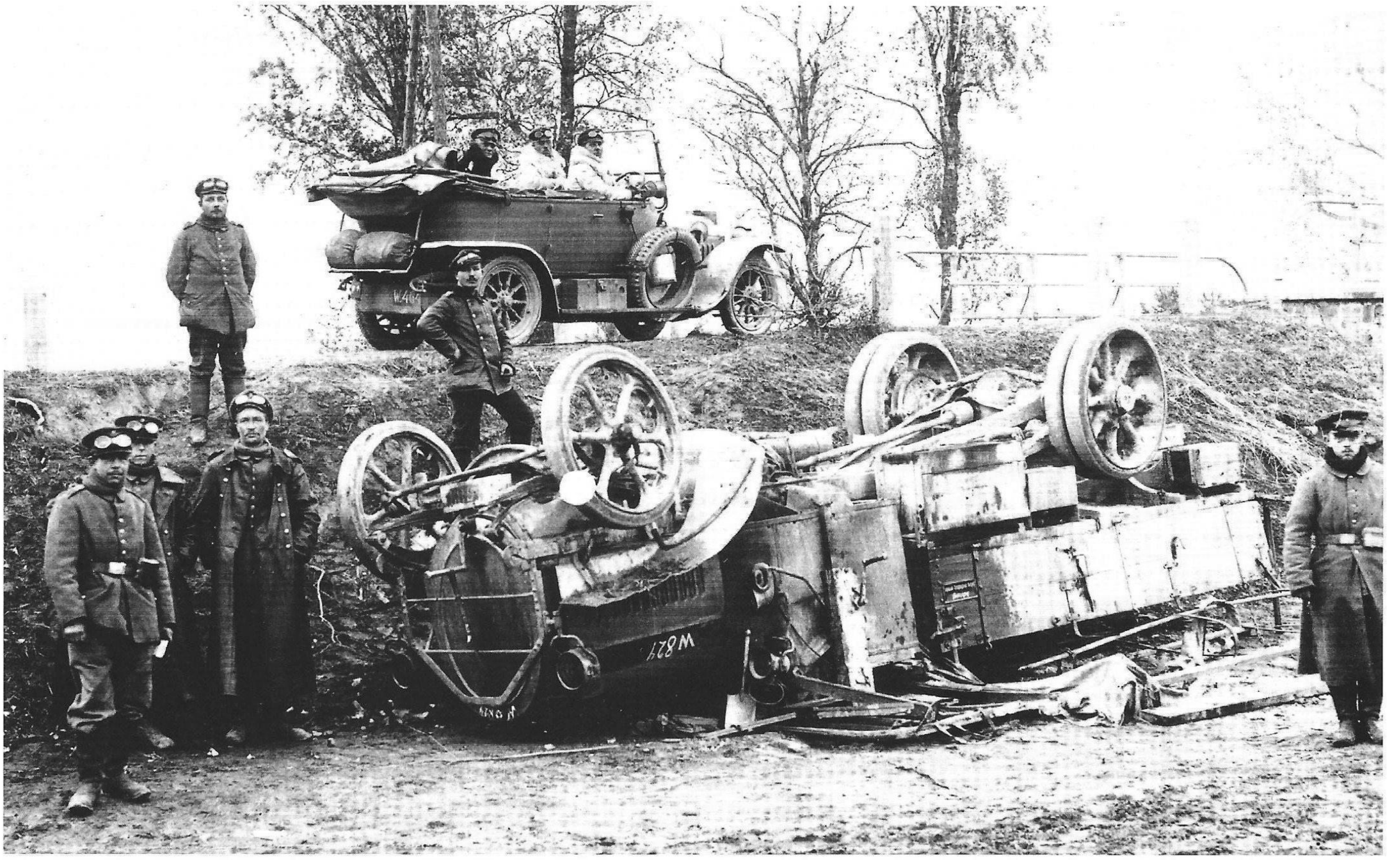




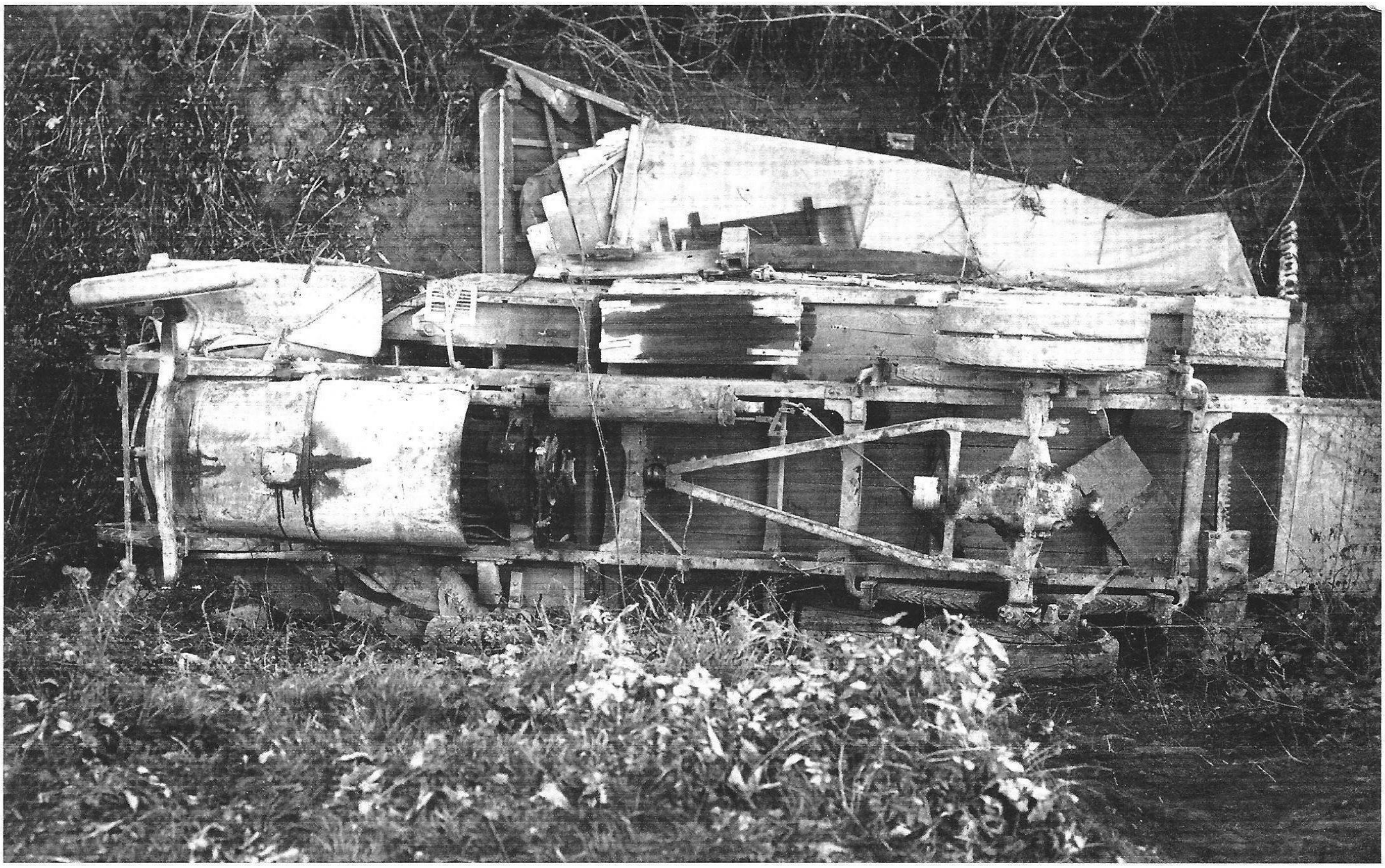
Huge luck for the driver of this 3-ton Benz truck of *Feld Luftschiffer 32* (32nd Balloon Corps Detachment) of *V Armee*. In January 1917, he accidentally reversed over the quay at the Valenciennes inland port near the Schelde River, France, and nearly sunk his vehicle. Solid rubber-rimmed wheels and icy roads made a very bad combination. Credit: Jochen Vollert Collection

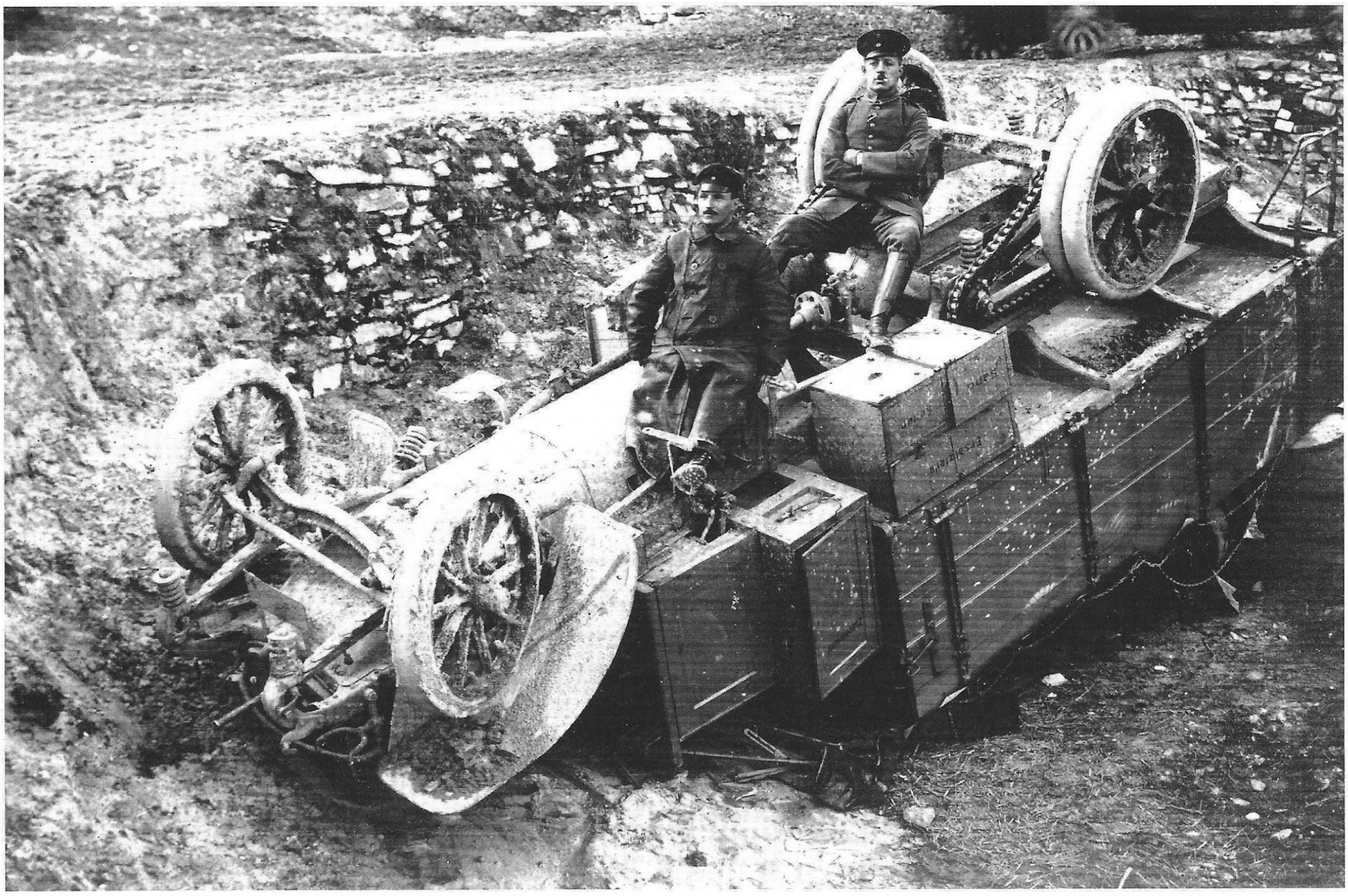


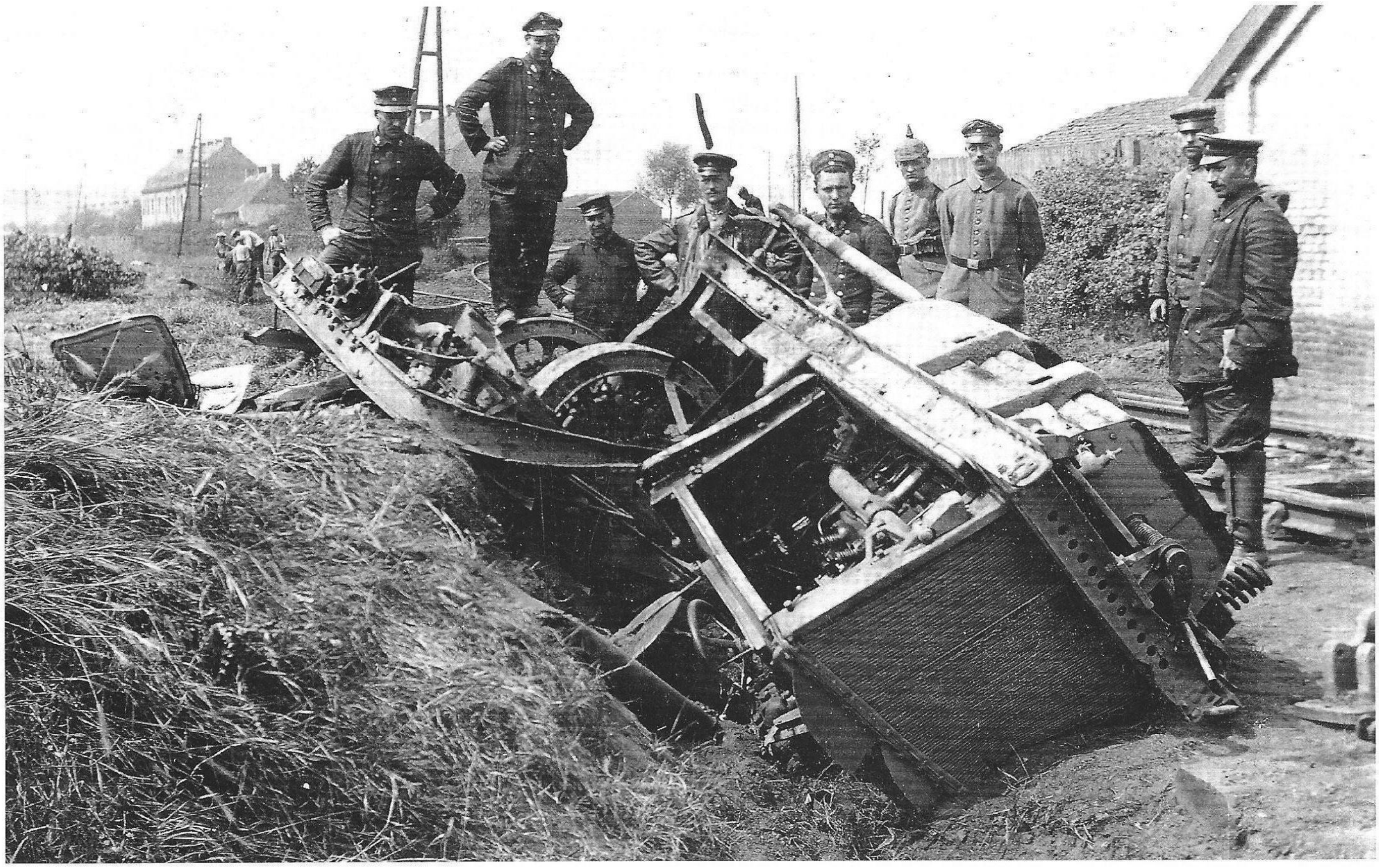
Taking a closer look at the environment around this Daimler, it must have been engulfed by an artillery barrage in July 1918. Although the charring on the engine compartment suggests a fire, the wooden side panels of the cargo bay did not catch fire. Credit: Jochen Vollert Collection



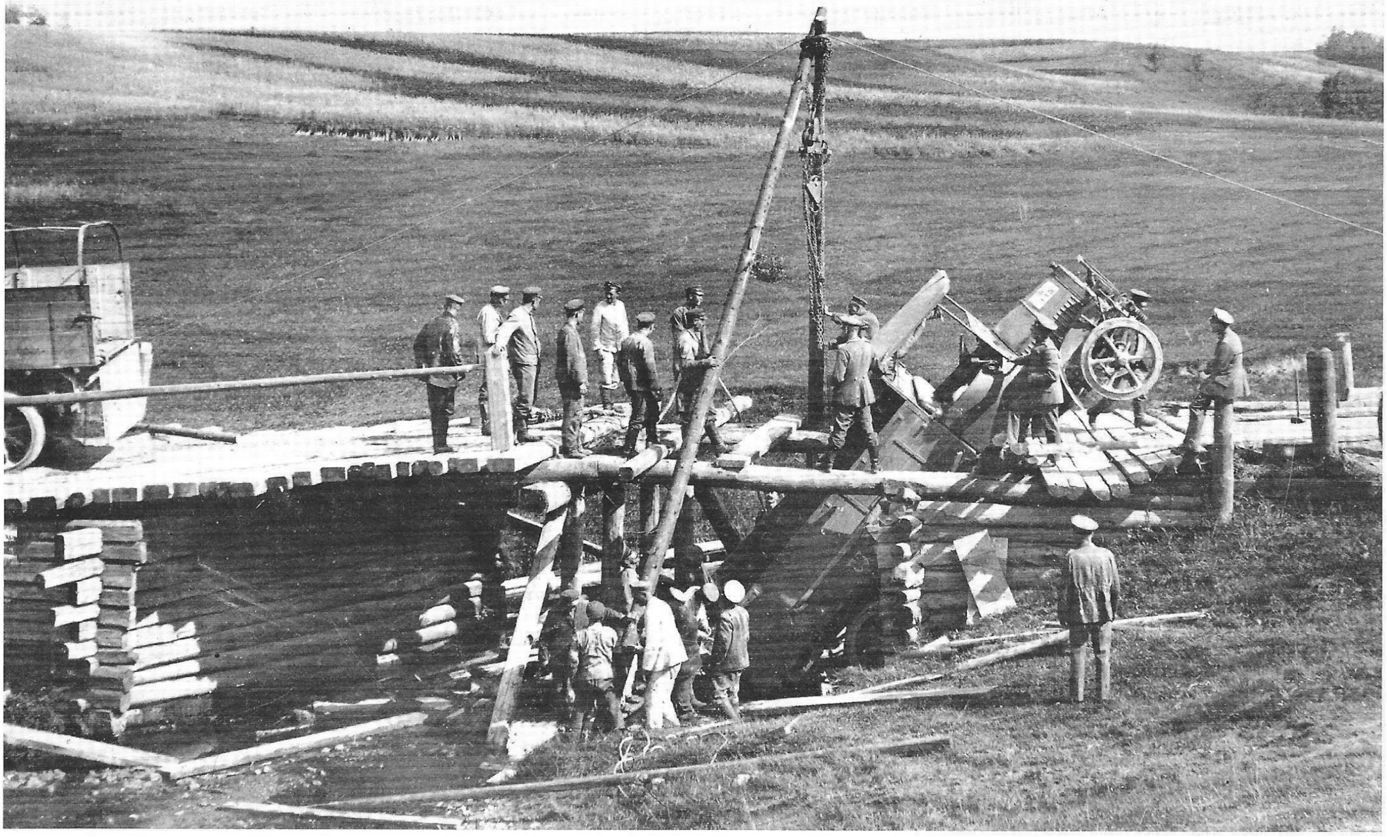
By far the deadliest accidents were simple rollovers on road embankments. A tired driver, one second of poor concentration, or darkness insufficiently lit by the weak lamps – not much more was required to damage or destroy a truck and in most cases kill the entire crew. The vehicle being equipped with a soft-top or hardtop did not make any difference, as there was no roll-bar protection available. The photos show an NAG of *Armee-Abteilung Woyrsch* (above), an unidentified truck with Cardan drive (below) and a Hansa-Lloyd truck with a chain drive and with coil springs on both the front and rear axle leaf-spring suspensions (page overleaf, top). Credit: Jochen Vollert Collection



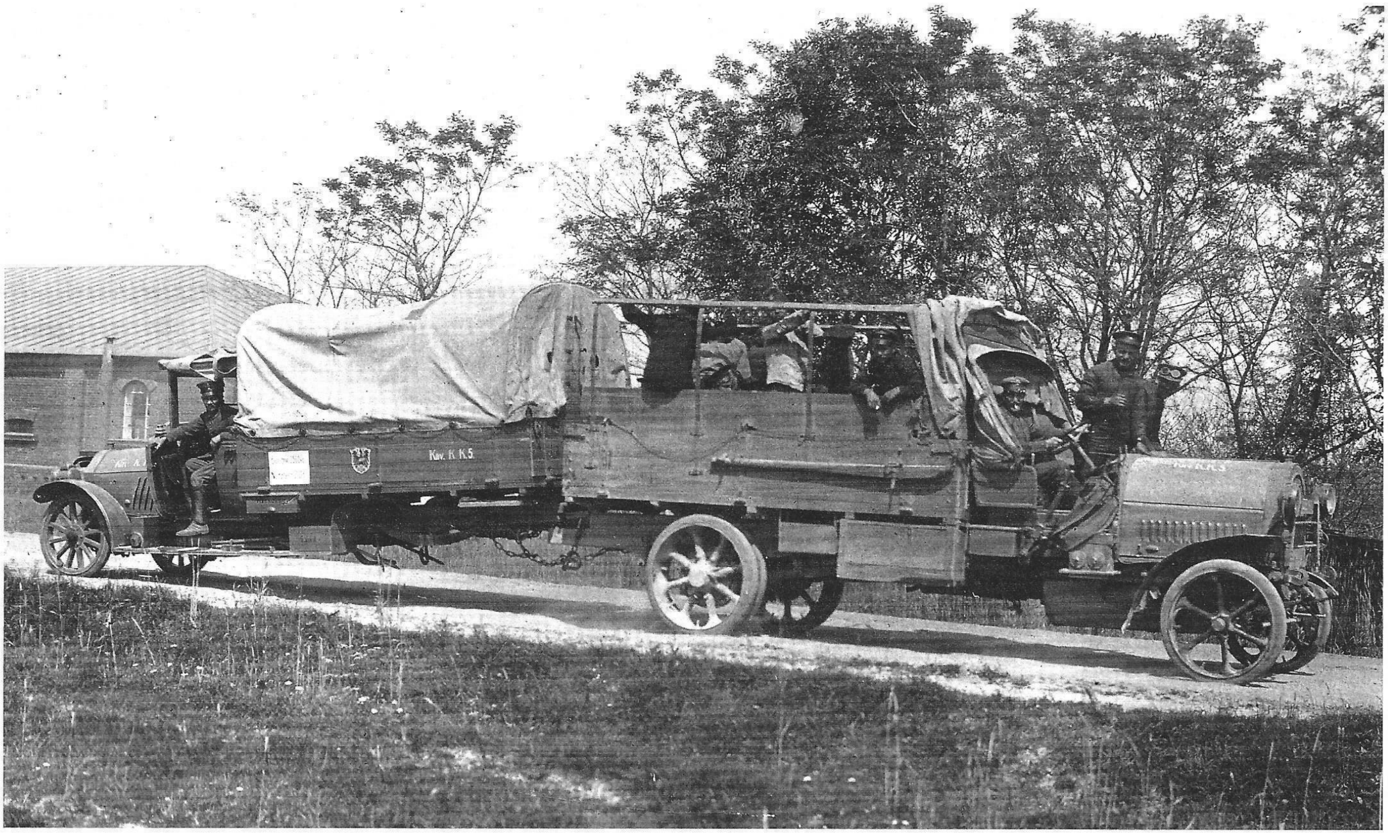




What could have happened to this Büssing, whose entire frame and rear axle look like they were twisted by a giant for fun? The nearby tracks indicate it was hit by a train. Note that this truck is equipped with the full-steel wheels that replaced the solid-rubber rimmed versions.
Credit: Jochen Vollert Collection

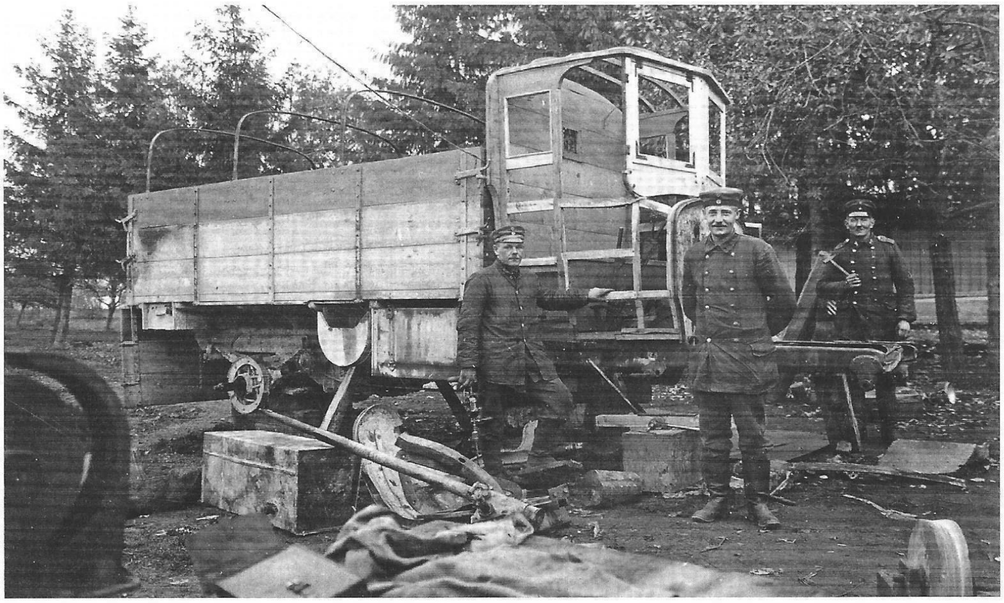


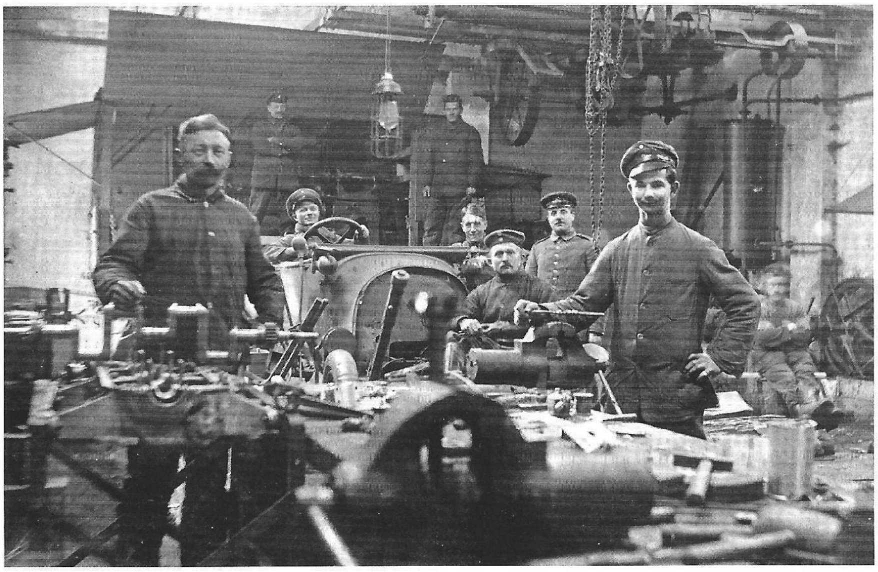
There were very few specialised recovery assets available close to the frontlines, and in consequence *Etappen-Kraftwagen-Kolonnen* had to make do with their own improvised measures. This Benz has broken through a wooden engineer bridge and is now being lifted back onto the road by using a simple jib crane constructed of telephone poles and a block and tackle. Credit: Jochen Vollert Collection



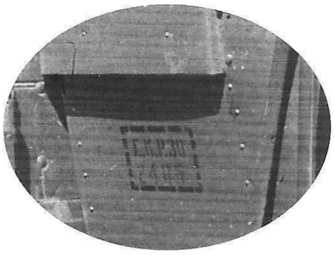
A damaged Horch truck is towed back to repair facilities in the *Etappe* hinterland. The towing vehicle is another standard cargo truck, in this case an NAG, as there were extremely few designated wreckers at the time in the German Army. In this photo the damaged vehicle has lost its rear axle, which made an elaborate recovery procedure necessary. Both trucks are in service with *Kavallerie-Kraftwagen-Kolonne 5*.
Credit: Jochen Vollert Collection

In the *Werkstatt* repair facility there were several specialist shops operated by skilled craftsman. Shown here are carpenters of the body shop, basically rebuilding the entire wooden cab and cargo bay of a damaged 3-ton truck. The engine has been removed to ease access to the bulkhead.
Credit: Jochen Vollert Collection

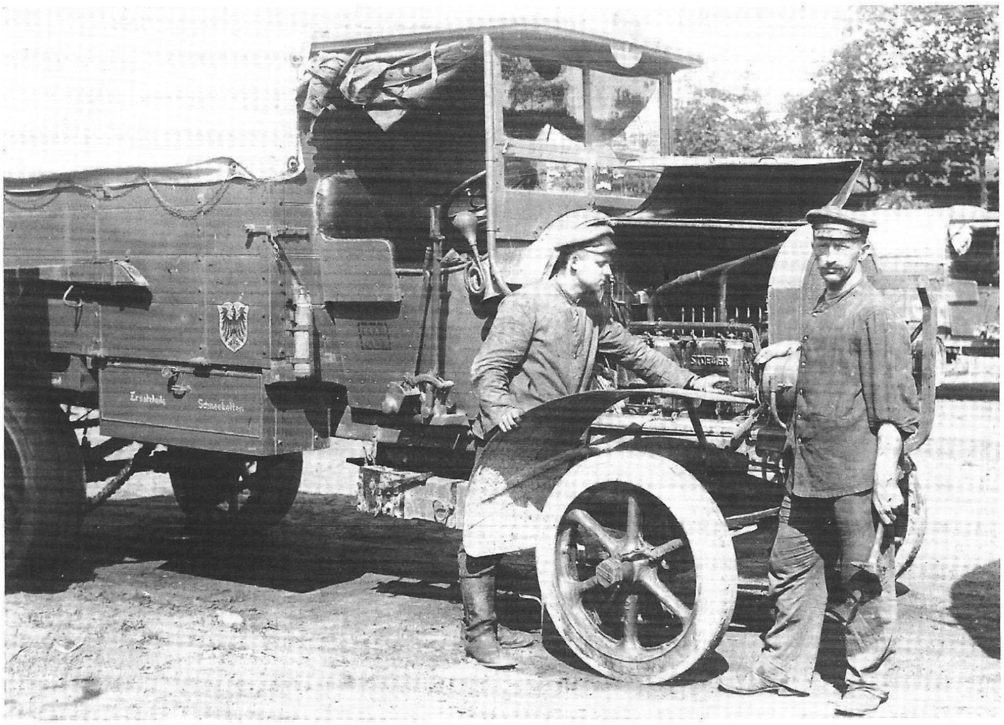




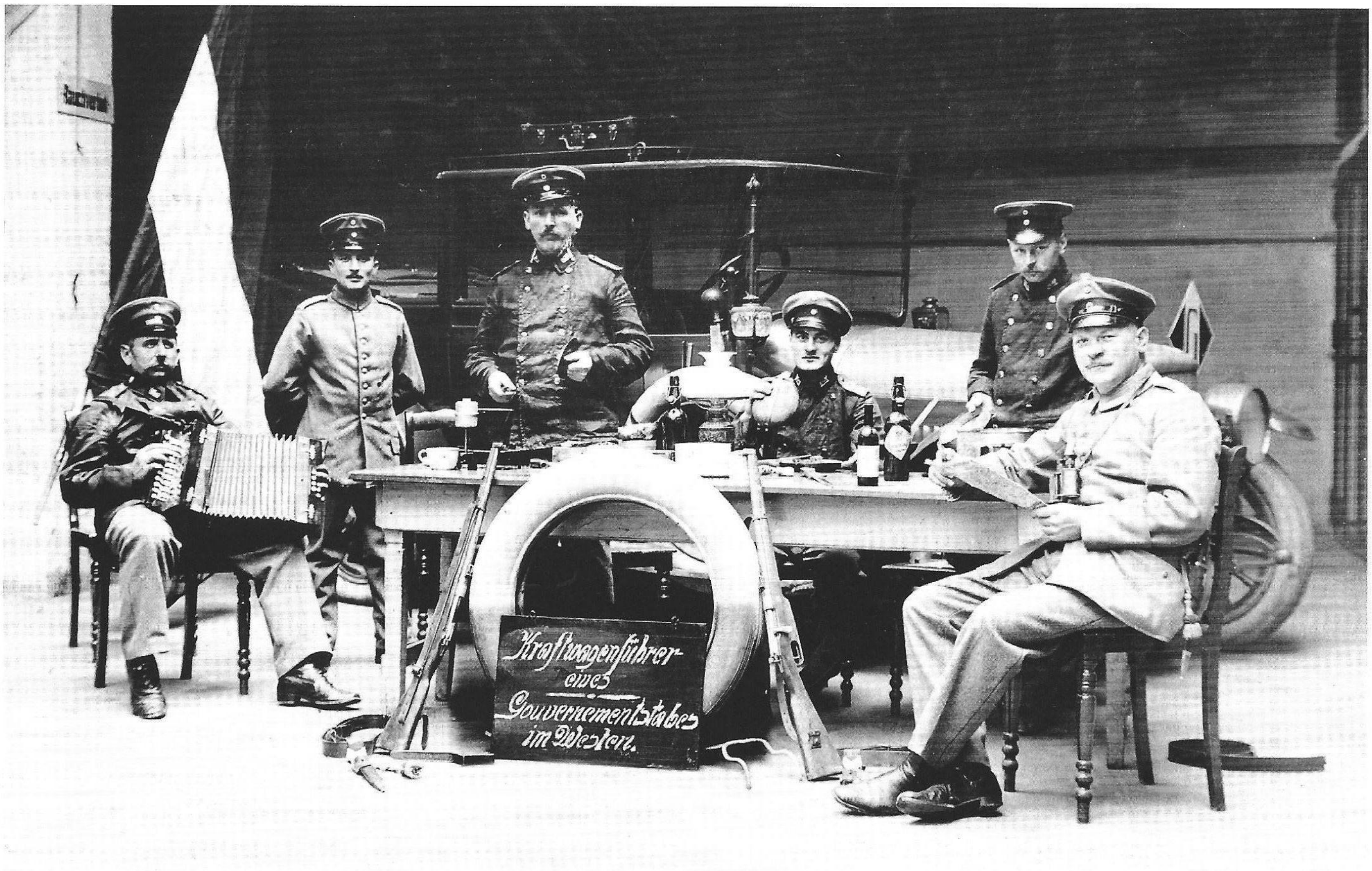
A look at a typical workshop dealing with mechanical parts of vehicles. Due to the smorgasbord of vehicle types in one unit, these mechanics had to be highly skilled and capable of improvising components that were often not available from the supply chain.
Credit: Jochen Vollert Collection

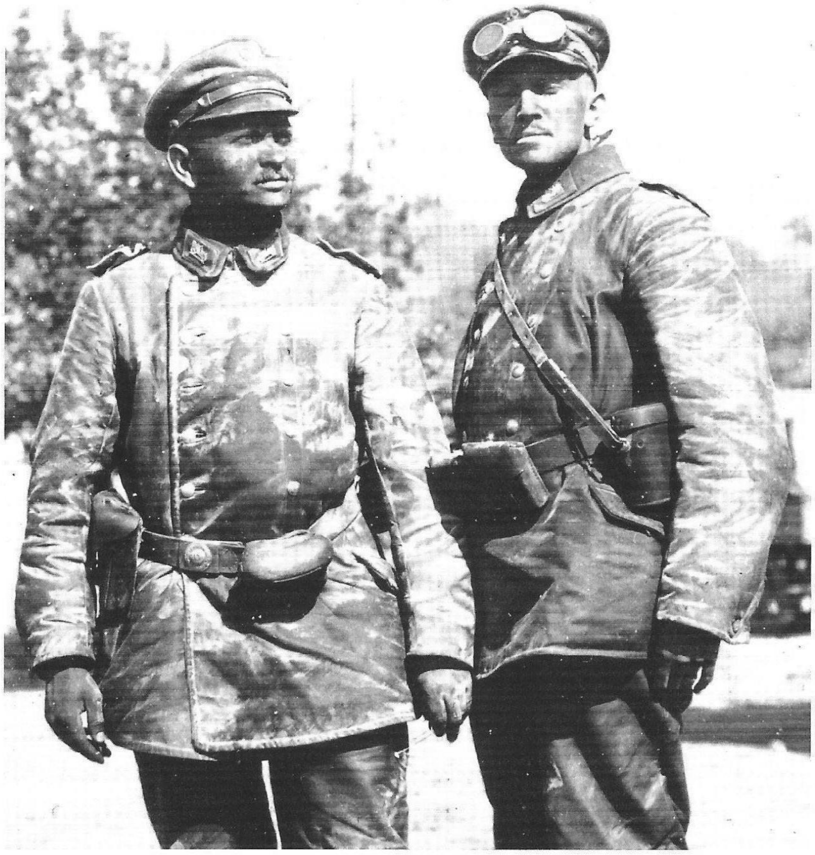


Then there were of course the engine mechanics working hard to keep the colourful fleet of German *Kraftfahrtruppe* operational. The mechanics needed to be able to improvise a lot and work on any type of engine coming in for repairs. In this case it is the engine of a pre-war Stoewer truck that needs attention. A very rarely seen detail are stencilled unit designations such as here visible on the driver's door: *'Etappen-Kraftwagen-Park 30, Wagen 2405'*, see inset.
Credit: Jochen Vollert Collection



07. Uniformierung / Motor Troops' Uniforms

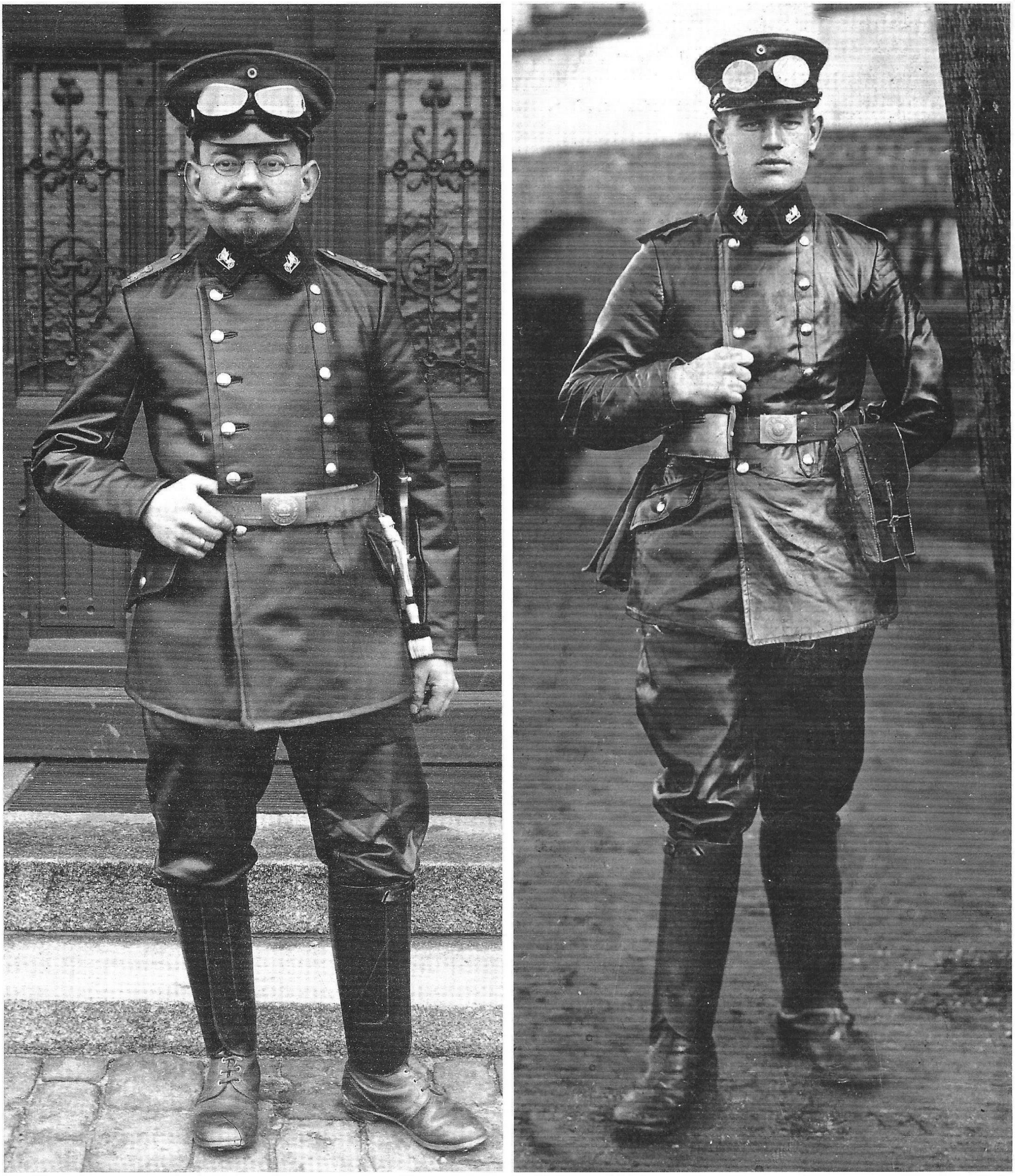


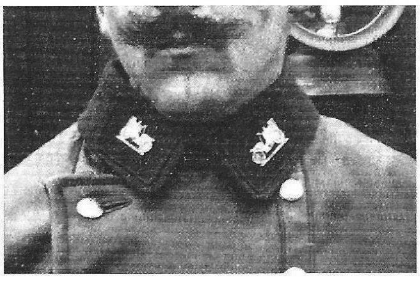


Soldiers of the *Kraftfahrtruppe* wore the standard duty uniform of the German Army when working in offices and workshops. However, for drivers in the Imperial German Army, the so-called *Fahranzug* or *Lederanzug* (driver's duty leather uniform) was introduced as early as 1907 before being modernised in 1912. The leather *Fahranzug* was used for everyday operations in the field, yet when operating in hot climates, a cloth version of the *Fahranzug* (made of black *Drillich* drill cloth) was available, and standard field tunics were also permitted. All three types of uniforms are visible in this photo. The sign plate reads: "Truck drivers of a Gouvernement HQ in the West."
Credit: Jochen Vollert Collection

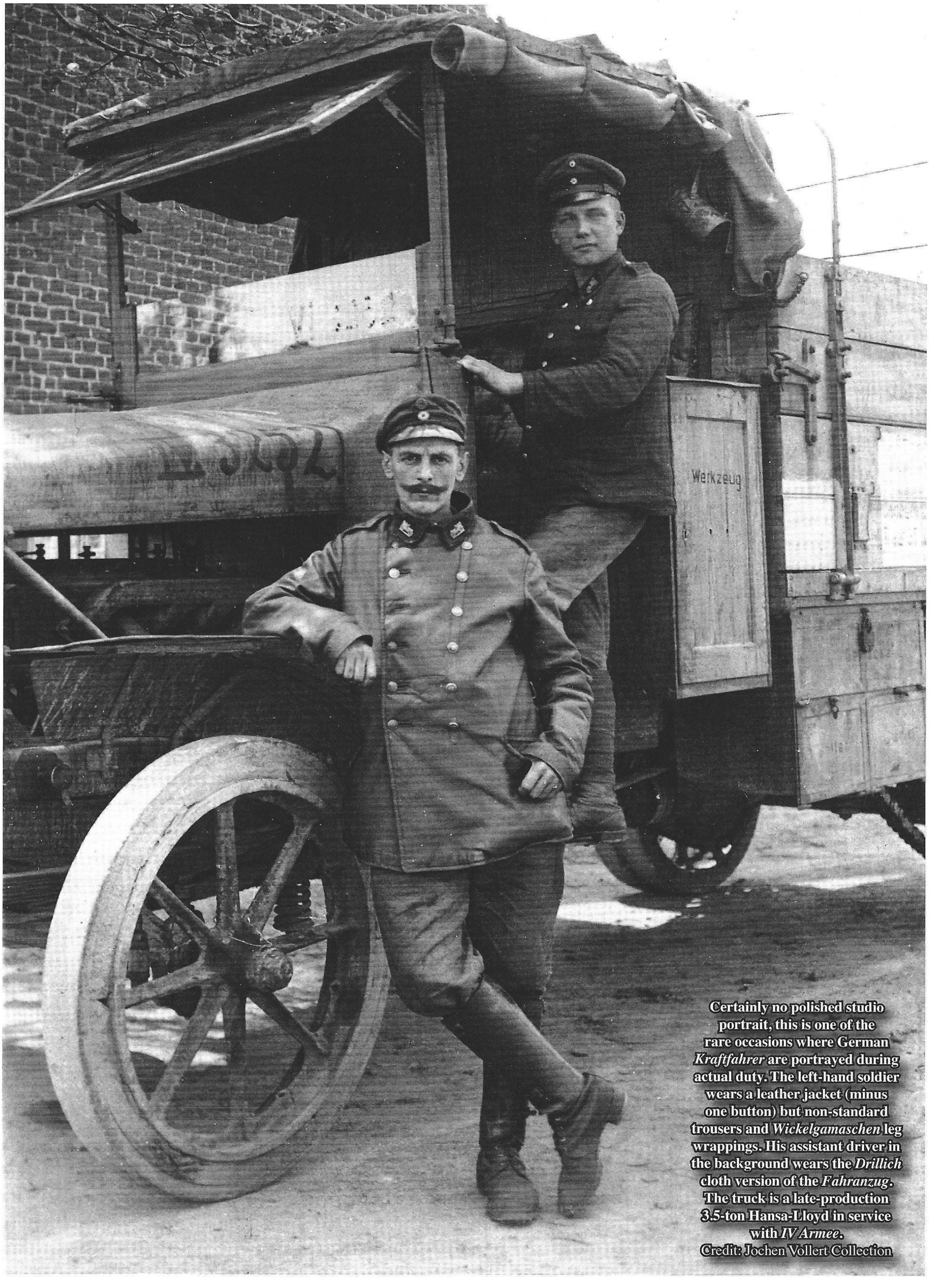
The *Fahranzug* protective leather uniform consists of a *Ledermütze* (leather visored cap), *Lederlitewka* (leather uniform jacket with two lines of zinc, German silver or bronzed buttons), *Lederhose* (leather trousers), *Handschuhe* (gloves), *Halsschützer* (neck protection), *Schutzbrille* (protective goggles), *Leibriemen* (belt), and either *Infanteriestiefel* (infantry boots), *Gamaschen* (gaiters) or *Wickelgamaschen* (leg wrappings), the latter in combination with *Schnürstiefel* (lace combat boots). For foul weather and wintertime, an additional overcoat and gloves would be worn. Standard to all *Kraftfahrtruppe* uniforms were the "epaulette" shoulder boards with a red '*K*' for '*Kraftfahrtruppe*', and a pewter/zinc insignia in the shape of a motor vehicle on the dark blue *Kragenplatte* (cloth collar).

Clean studio portraits were preferred, but these two drivers underline what truck driving in a war zone really meant! Credit: Jochen Vollert Collection





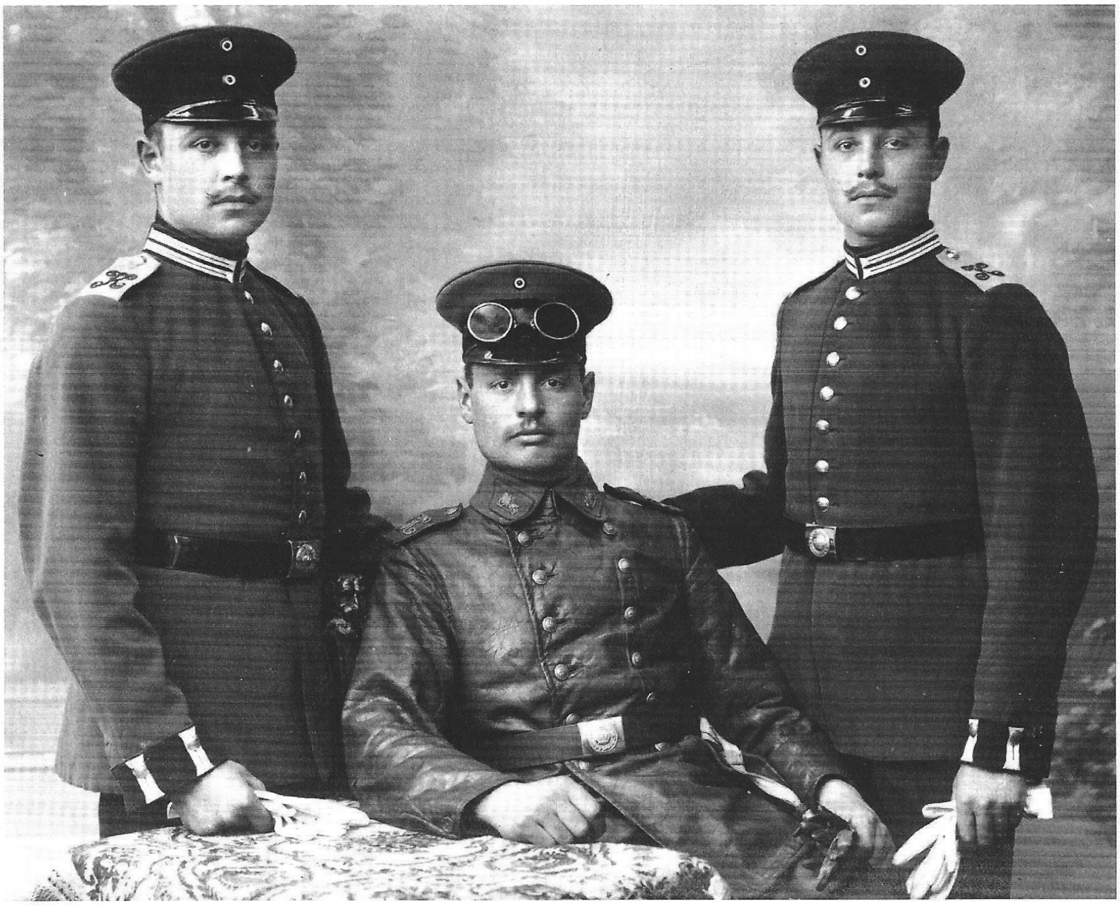
Examples of the standard leather *Fahranzug*, here consisting of the protective leather uniform with *Ledermütze* (leather visored cap), *Lederlitewka* (leather uniform jacket with two lines of buttons), *Lederhose* (leather trousers), *Schutzbrille* (protective goggles), *Leibriemen* (belt) and *Gamaschen* (gaiters). Note the "epaulette" shoulder boards with the red '*K*' for *Kraftfahrtruppe*, and the pewter/ zinc insignia in the shape of a motor vehicle (see close-up left) on a dark blue *Kragenplatte* (cloth collar). The buttoned jacket pockets reveal it is an M 1912 version. It needs to be noted that numerous smaller details were encountered on the *Fahranzug* that differed from the "standard" version. These will be pointed out in the following pages. From 1912 a *Fahranzug* made of black *Drillich* (drill cloth), but with the same cut as the leather version, was introduced to be worn in hot summer months. When comparing the two photos above, it becomes apparent that the double line of zinc buttons in the left-hand picture is wider than the double line in the right-hand picture. Credit: Jochen Vollert Collection

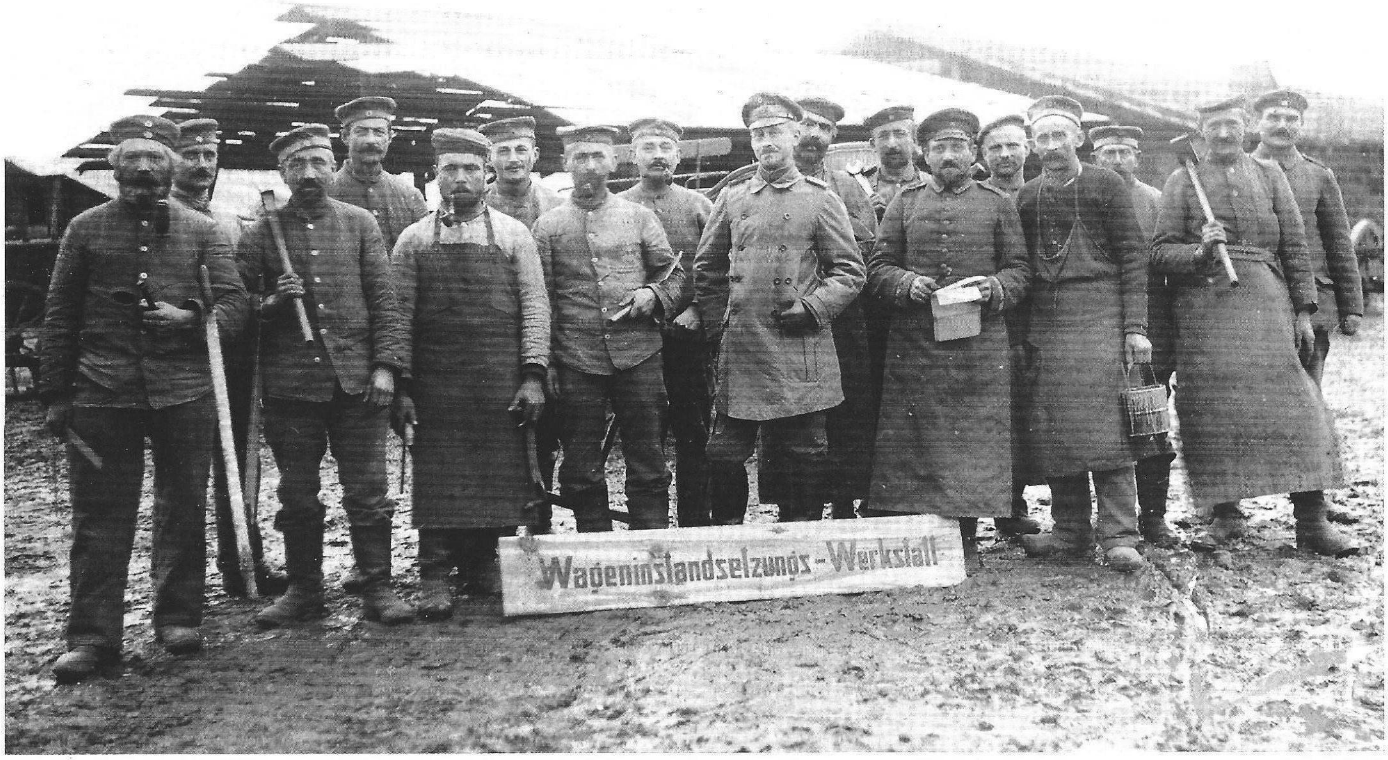


Certainly no polished studio portrait, this is one of the rare occasions where German *Kraftfahrer* are portrayed during actual duty. The left-hand soldier wears a leather jacket (minus one button) but non-standard trousers and *Wickelgamaschen* leg wrappings. His assistant driver in the background wears the *Drillich* cloth version of the *Fahranzug*. The truck is a late-production 3.5-ton Hansa-Lloyd in service with *IV Armee*.

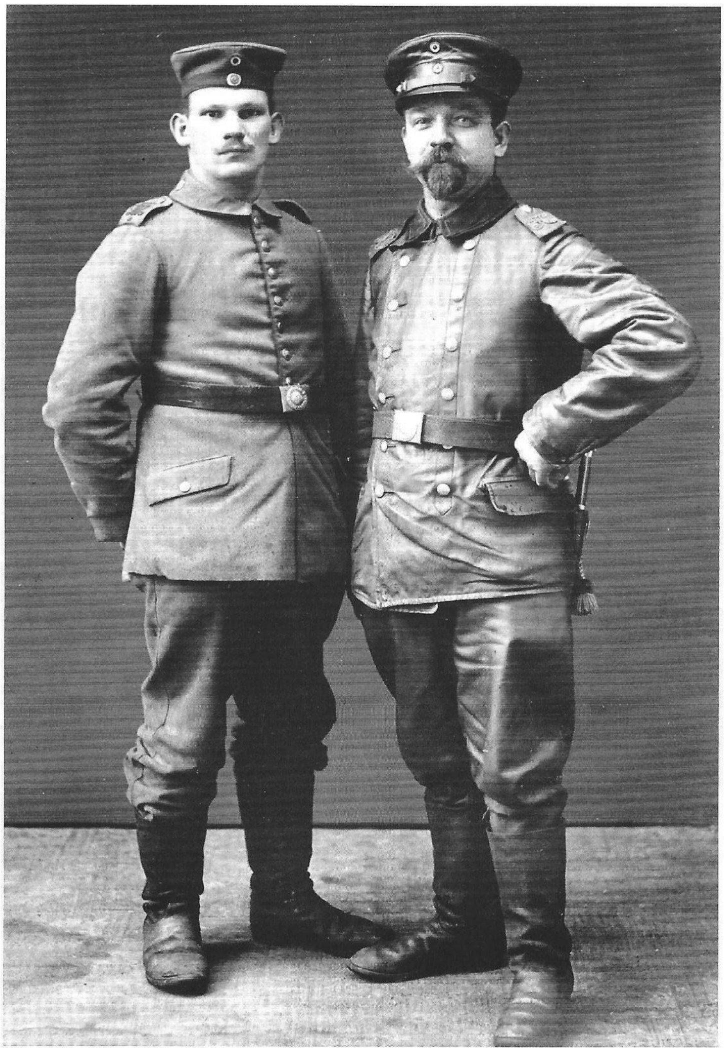
Credit: Jochen Vollert Collection

Three members of one family all serving with the *Kraftfahrtruppe*. What makes this photo so interesting is that the soldier in the centre is wearing some kind of "low-visibility" leather jacket with gunmetal-finished buttons, collar insignia and shoulder boards rather than the standard polished zinc version. The difference to standard insignia becomes even clearer when looking at the shiny buttons of the tunics of the two other soldiers. Note also their '*K*' insignia in red on the light grey shoulder boards. Credit: Jochen Vollert Collection

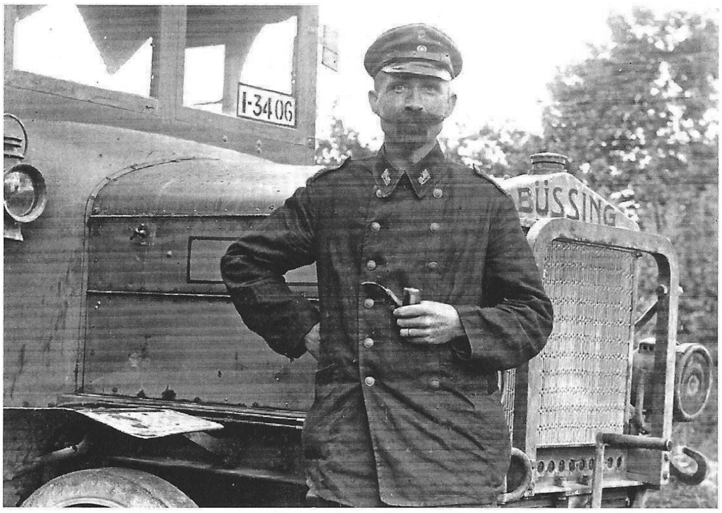




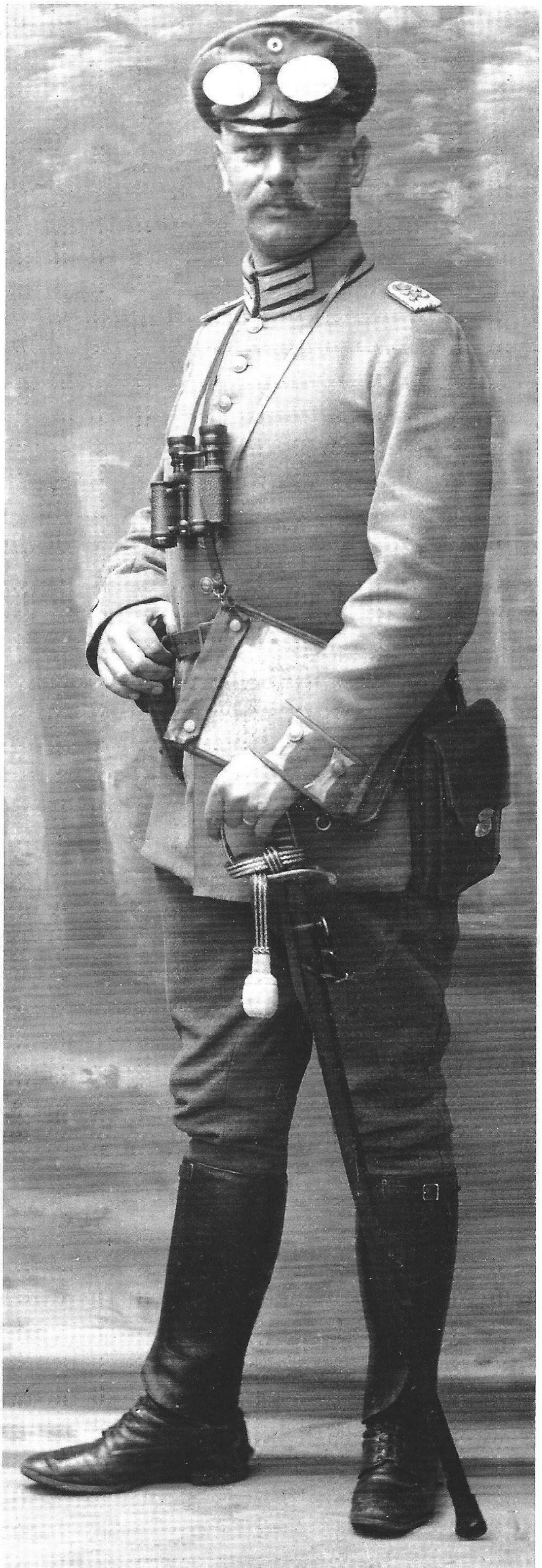
When looking into all the proud faces of truck drivers in this chapter, one must not forget that the trucks were kept operational by a small army of specialists and craftsmen in compounds behind the frontlines. Shown here are proud members of a *Wageninstandsetzungs-Werkstatt* (vehicle repair workshop) including carpenters, blacksmiths, mechanics, saddlers and other specialised personnel. All wear simple field tunics or specialised clothing such as aprons. Credit: Jochen Vollert Collection



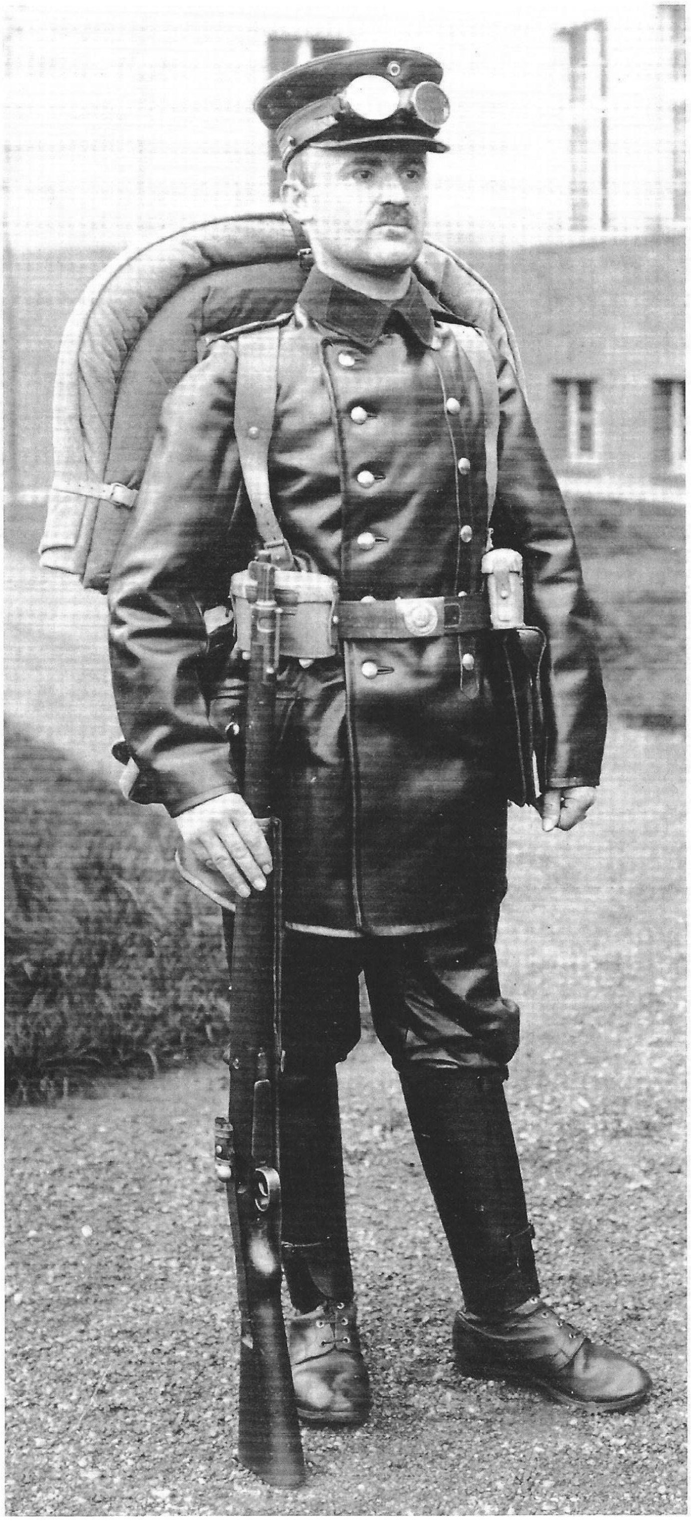
A direct comparison of the standard *Kraftfahrtruppe* field tunic made of cloth and with one line of buttons, here in combination with the *Krätzchen* field cap (left) and the *Lederfahranzug* with two lines of buttons, the left one of which has a strip of leather underneath (right). A closer look at the pockets of the leather jacket reveals the absence of buttons, thus making this an M 1907 model of the *Fahranzug*. Note also that both soldiers are wearing leather boots. Credit: Jochen Vollert Collection



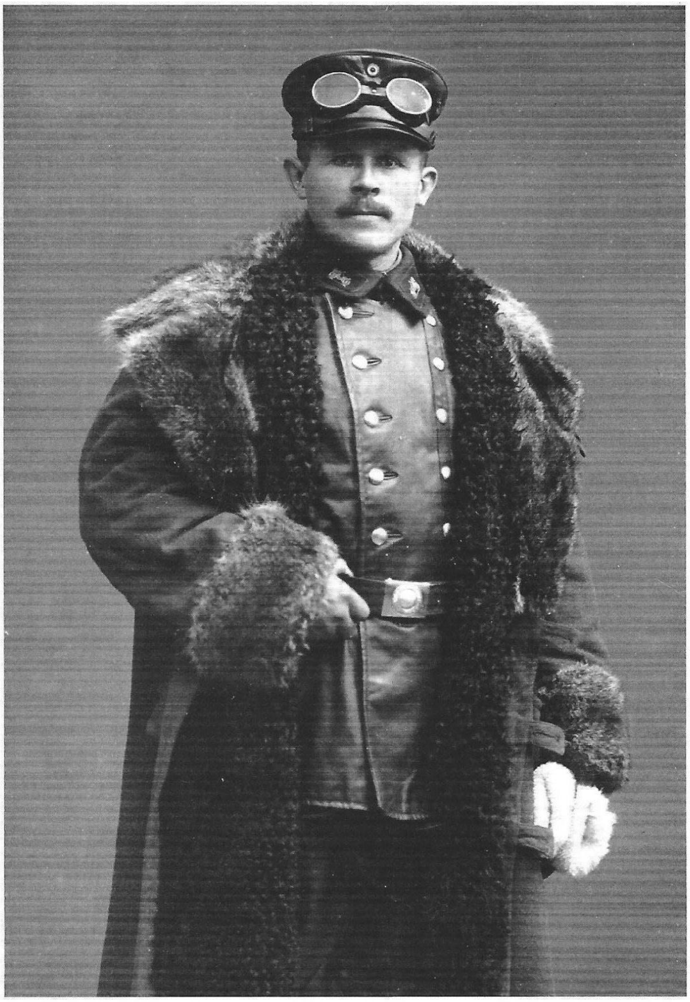
A driver on front of his Büssing of *I Armee*. Credit: Jochen Vollert Collection

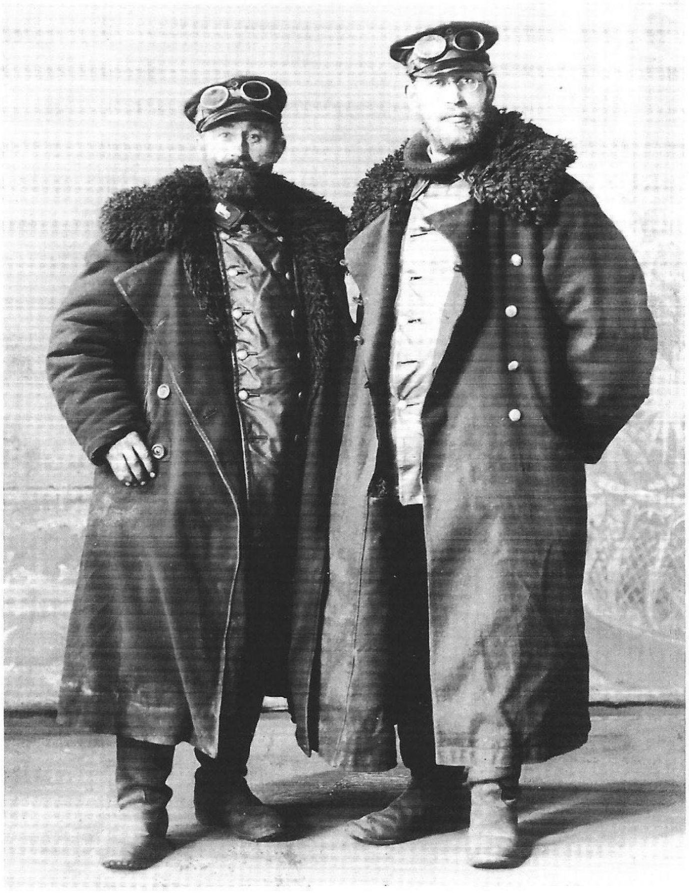


An officer of the *Kraftfahrtruppe* in field tunic with binoculars, maps, document bag and dagger. Credit: Jochen Vollert Collection

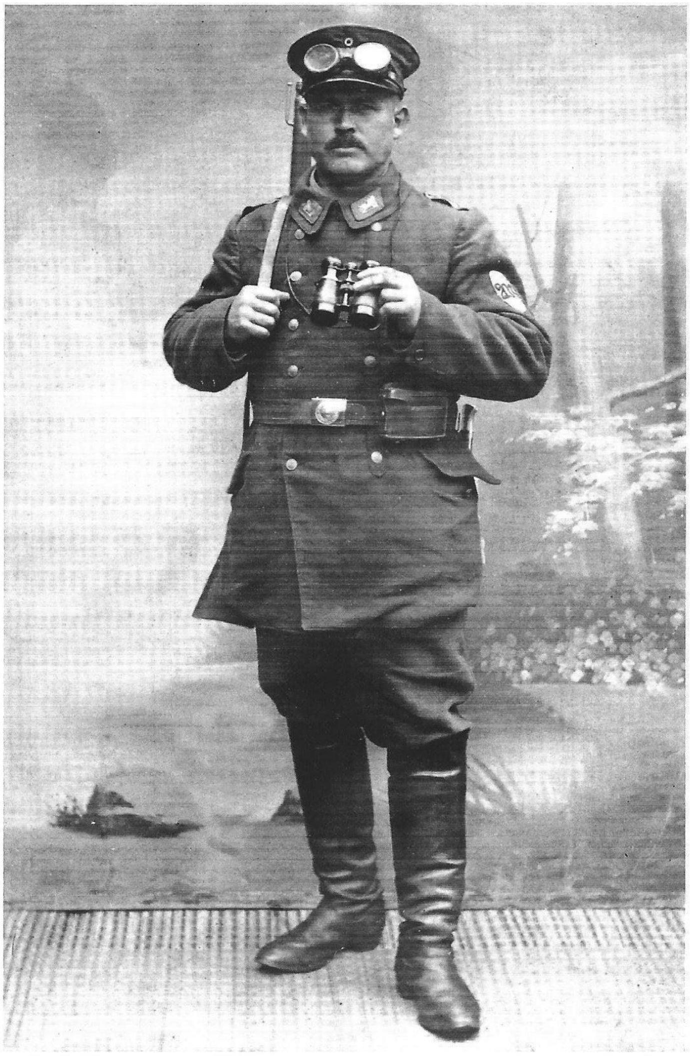


A soldier of the *Kraftfahrtruppe* in a *Fahranzug*, yet completely equipped with field gear including a backpack, ammo pouches and rifle. A closer look reveals the absence of the motor vehicle insignia on the collar. Credit: Jochen Vollert Collection

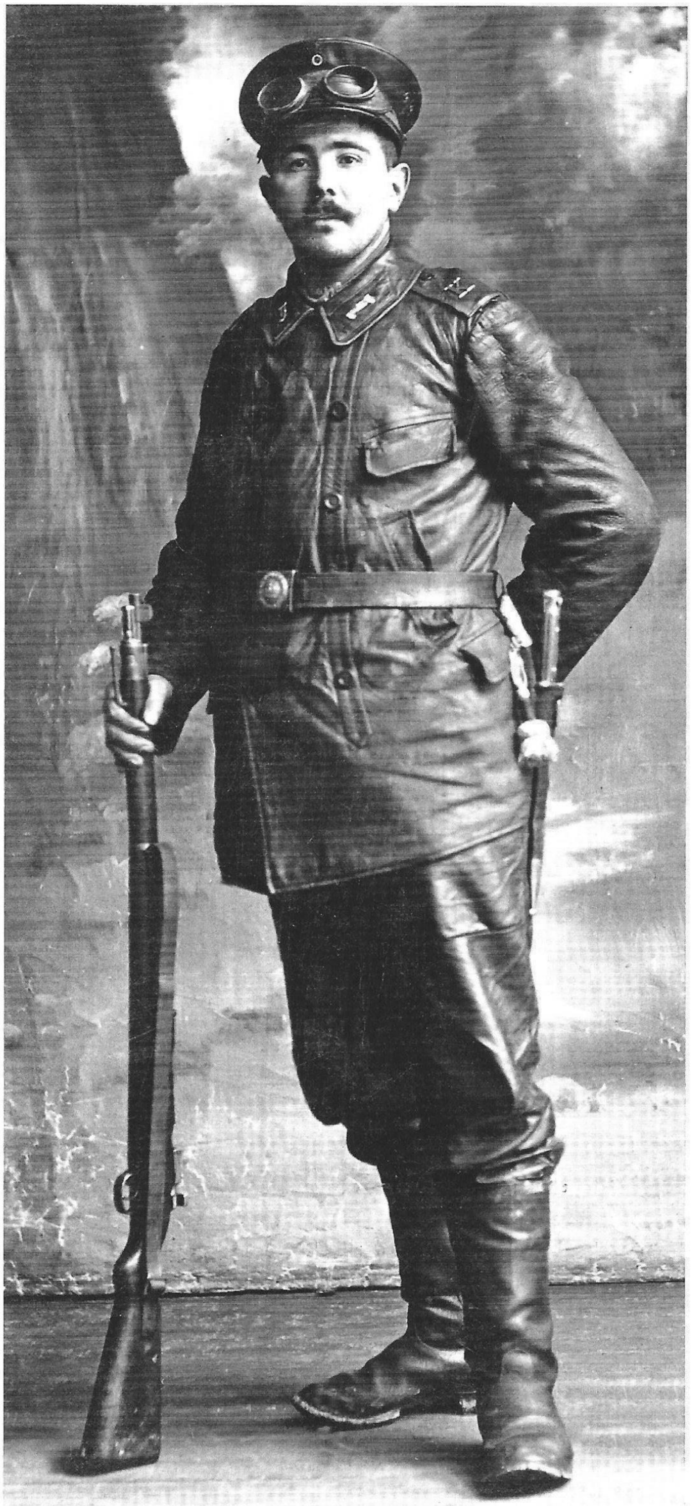


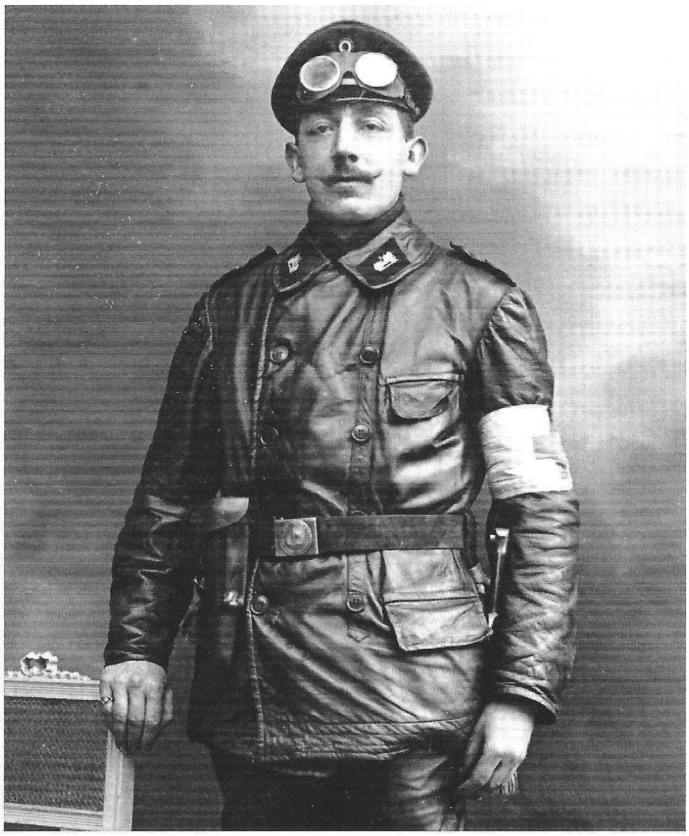


For wintertime, leather coats with fur lining were worn over the *Fahranzug* (left) or *Felduniform* field tunic (right). In many cases the soldiers opted for privately purchased winter coats as these were warmer and more comfortable to wear than the army version *Wintermantel M 1912* provided to them. Credit: Jochen Vollert Collection



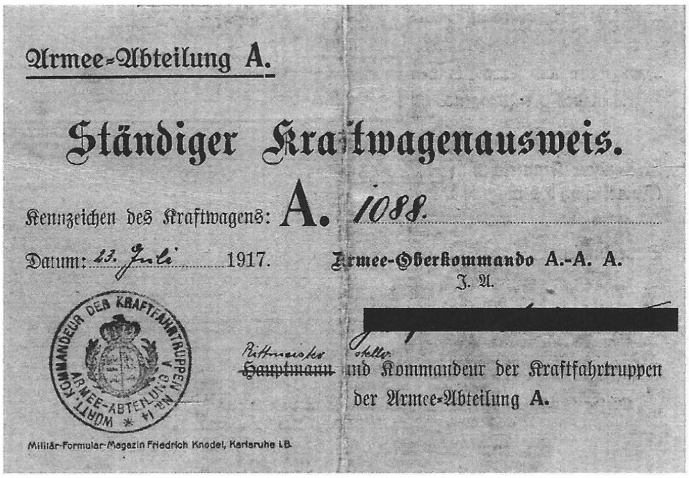
A *Fahranzug* made of drill cloth for duty in hot climatic zones or summertime. Note the ammo pouch and the unusual marking with a unit number on the upper-left arm. The metal motor vehicle collar insignia sits on a pad of cloth, as was standard issue.
Credit: Jochen Vollert Collection





This uniform shows some intriguing details such as the motor vehicle insignia not fitted to a cloth pad on the collar but to a leather one; the leather jacket with a line of only four horn buttons rather than the usual six metal ones; and a breast pocket where before there was none. Note also the full-metal '*K*' on the shoulder board where there was usually only a cloth version. The photo on the left of a *Kraftfahrtruppe Sanitäter* medical orderly shows another one of these unusual uniforms, yet with the standard cloth collar insignia pad and epaulettes.
Credit: Jochen Vollert Collection

08. Dokumente / Documents



Armee-Abteilung A.

Ständiger Kraftwagenausweis.

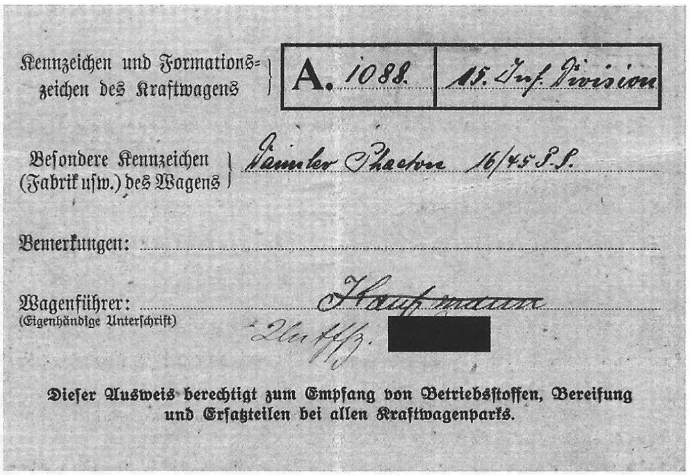
Kennzeichen des Kraftwagens: A. 1088.

Datum: 23. Juli 1917.

Armee-Oberkommando A.-A. A.
J. A.
[redacted]

Rittmeister ~~Hauptmann~~ stellv. und Kommandeur der Kraftfahrtruppen
der Armee-Abteilung A.

Militär-Formular-Magazin Friedrich Knodel, Karlsruhe i.B.



Kennzeichen und Formationszeichen des Kraftwagens: A. 1088. | 15. Inf. Division

Beſondere Kennzeichen (Fabrik uſw.) des Wagens: Daimler Phaeton 16/45 P.S.

Bemerkungen:

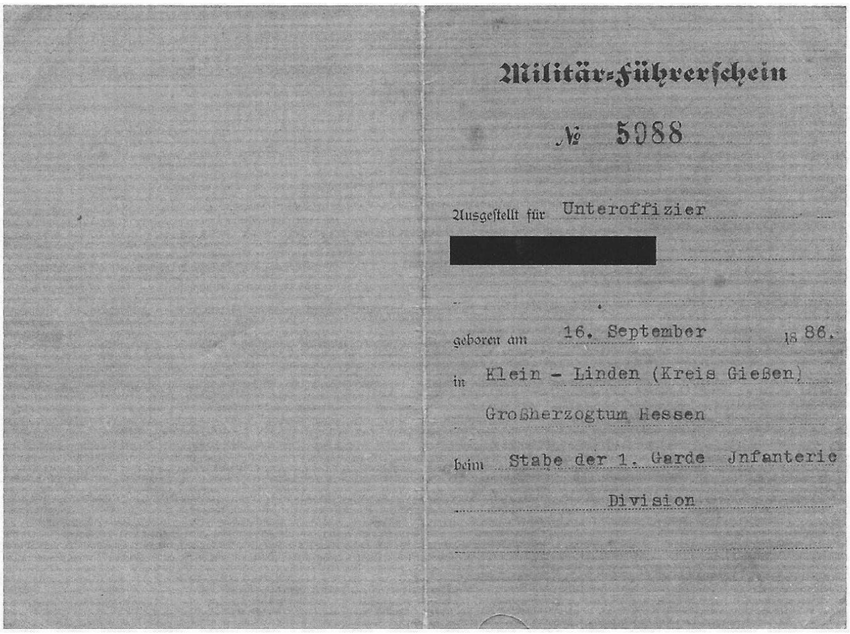
Wagenführer: ~~Kaufmann~~
(Eigenhändige Unterſchrift) Uffz. [redacted]

Dieſer Ausweis berechtigt zum Empfang von Betriebsſtoffen, Bereifung und Erſatzteilen bei allen Kraftwagenparks.

Ständiger Kraftwagenausweis **(permanent vehicle registration document) issued by *15. Infanterie-Division, Armee-Abbteilung A* for a *Daimler Phaeton 16/45 PS* registered as '*A. 1088*'on 23 July 1917.**
Front and rear views. Light gray paper.
The lettering on the rear side reads: This document grants access to fuels of all types, tyres and spare parts at all *Kraftwagenparks* (vehicle depots).
Credit: Jochen Vollert Collection

Militär-Führerschein **(military driver's licence) Class III b (passenger cars and light trucks) for a non-comissioned officer serving with *Stab der 1. Garde-Infanterie-Division* (HQ, 1st Guards Infantry Division) Front and rear views. Green-gray paper. The licence confirms a passed driver's test on 9 May 1917.** Credit: Jochen Vollert Collection

Names in the document are deleted, as required by modern German law.

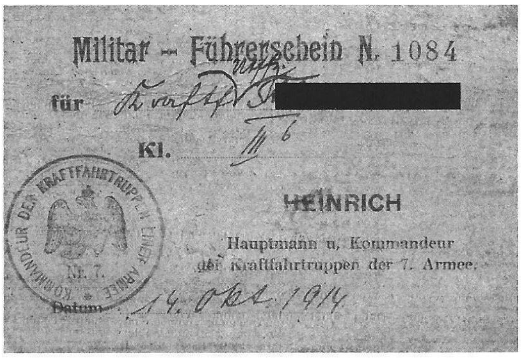


Militär-Führerſchein

№ 5088

Ausgeſtellt für Unteroffizier
[redacted]

geboren am 16. September 1886.
in Klein - Linden (Kreis Gießen)
Großherzogtum Hessen
beim Stabe der 1. Garde Jnfanterie
Division



Militar - Führerschein N. 1084

für Kraftf. Uffz. [redacted]

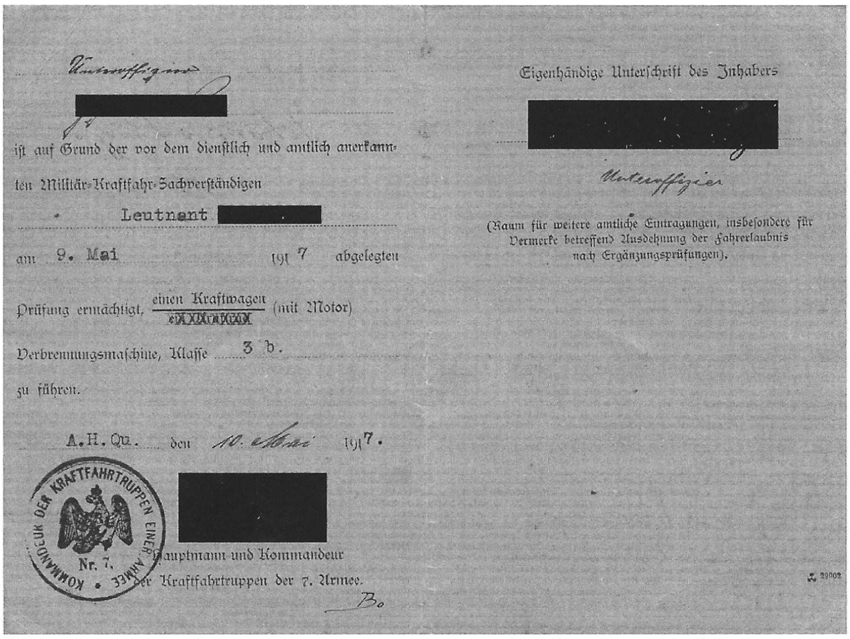
Kl. III b

HEINRICH
Hauptmann u. Kommandeur
der Kraftfahrtruppen der 7. Armee.

Datum 14. Okt. 1914

Early simplified *Militär-Führerschein* (military driver's licence) Class III b (passenger cars and light trucks) for a non-comissioned officer serving with *Kraftfahrtruppe der 7. Armee* (7th Army Motor Troops). Issued on 14 October 1914. Front view. Backside is empty. Sand-coloured paper. Credit: Jochen Vollert Collection

Names in the document are deleted, as required by modern German law.



Unteroffizier
[redacted]

iſt auf Grund der vor dem dienſtlich und amtlich anerkannten Militär-Kraftfahr-Sachverſtändigen

Leutnant [redacted]

am 9. Mai 1917 abgelegten

Prüfung ermächtigt, einen Kraftwagen / XXXXXXX (mit Motor)

Verbrennungsmaſchine, Klaſſe 3 b.

zu führen.

A.H.Qu. den 10. Mai 1917.

Nr. 7.

[redacted]
Hauptmann und Kommandeur
der Kraftfahrtruppen der 7. Armee.
Bo

Eigenhändige Unterſchrift des Inhabers

[redacted]
Unteroffizier

(Raum für weitere amtliche Eintragungen, insbeſondere für Vermerke betreffend Ausdehnung der Fahrerlaubnis nach Ergänzungsprüfungen).

Z. 29002

Sources & Further reading

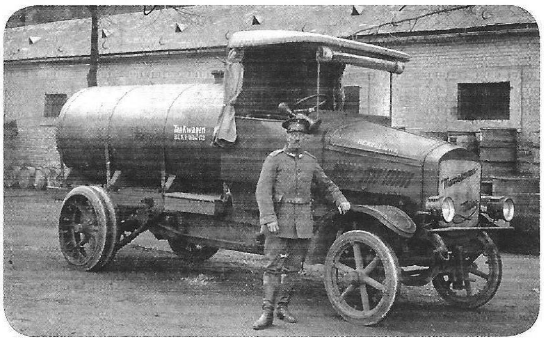
I took 20+ years of collecting and scrutinising the archives of several experts in the field to compile the wealth of information gathered for this two-volume publication. Among the sources were books on various truck makes, contemporary and modern magazine articles as well as the trained eye of the military vehicle buff. Having said that, the author wishes to highlight the only comprehensive source on German commercial truck manufacturers and types of the pre-1920 era ever published:

Geschichte des Deutschen LKW-Baus Band 1: 1896-1918	by Wolfgang H. Gebhardt published at Frank Kosmos in 1989 and reprinted by Weltbild Verlag 1994

This pocketbook-sized, 190-page publication is indeed a treasure trove of encyclopaedic information on commercial trucks of that era. Mr. Gebhardt's work served as the "skeleton" for the author's research into the topic, provided the framework of facts on which further information, corrections and the military use of the vehicles could be added, and more often than not it was the only reliable source, particularly on the rarer makes. With this publication, the author's curiosity in the topic was launched, and without the inspiration by Gebhardt's work this two-volume book on Imperial German Army trucks would perhaps never have happened. For all German language speakers, I strongly advise *Geschichte des deutschen LKW-Baus* in particular for non-military trucks and extended manufacturer background histories.

For those readers further interested in the civilian range of trucks of the early era and/or specific makes, here is a selection of titles recommended by the author:

°	The Complete Encyclopedia of Commercial Vehicles	G.N. Georgano, Krause Publications 1979
°	Mercedes-Benz Lastwagen & Omnibusse 1896-1986	Werner Oswald, Motorbuch Verlag, 2019
°	Büssing Lastwagen-Album	Bernd Regenberg, Podszun, 2007
°	Magirus Lastwagen-Album	Bernd Regenberg, Podszun, 2005
°	Kraft der vier Ringe	Christian Suhr, verlagkraftakt, 2007
°	Nacke - Sachsens erster Automobilbauer	Runge-Hamann-Giesel, Verkehrsmuseum Dresden, 2007



This publication focuses on standard cargo versions of truck-trailer combinations and solo trucks in military service. Specialist vehicles such as light delivery trucks, delivery vans, fuel tankers, workshop trucks, recovery vehicles, aircraft transport, field mail service and so on will be covered in a forthcoming separate volume in this series of publications.

N° 1001
Sturmpanzer A7V
First of the Panzers
N° 1002
Sturmtruppen
The Kaiser's Elite Stormtroopers
N° 1003
Beute-Tanks
British Tanks in German Service Vol. 1
N° 1004
Beute-Tanks
British Tanks in German Service Vol. 2
N° 1005
Grabenkrieg
German Trench Warfare Vol. 1
N° 1006
Grabenkrieg
German Trench Warfare Vol. 2
N° 1007
Panzer-Kraftwagen
Armoured Cars of the German Army and Freikorps
N° 1008
Feldluftschiffer
The German Balloon Corps and Aerial Reconnaissance
N° 1009
Krafträder
Military Motorcycles
N° 1010
Lastkraftwagen
German Military Trucks Vol. 1
N° 1011
Lastkraftwagen
German Military Trucks Vol. 2
No. 1012
coming in 2022

For further details on Tankograd's Series 1000 'World War One', please visit our website www.tankograd.com

Anzeige

Motorisation of the Imperial German Army began in 1899 when the first truck and the first passenger car with internal combustion engine were tested for their military usability. The development picked up speed from 1908 when the first comparative trial runs were held to find suitable subsidy truck models for the role of *Armeelastzug* (truck-trailer combination). After war had broken out, the solo truck took over this role of supplying the Kaiser's troops on all frontlines.

This publication tells, for the first time ever, the story of how the *Lastkraftwagen* (cargo truck) became the backbone of German military supply operations in World War One. The creation and organisation of the *Kraftfahrtruppe* (Army Motor Transport Corps) is extensively portrayed in text, followed by richly illustrated chapters on the trucks of individual manufacturers. These include major players such as Benz, Daimler and Opel; truck-building legends such as Büssing, Horch, Mannesmann-Mulag and Stoewer – names that today have all faded into history; and also enigmatic makes such as Ageka, Komnick and Windhoff, to name just a few. Additional chapters on wartime service, as well as uniforms, complete the survey of this early era of German military motoring in hitherto unseen completeness.

In a total of 192 pages, distributed over two volumes, this publication is lavishly illustrated with 380 photographs and illustrations, the vast majority of which have never been published before.

In 96 pages this publication (Vol. 2) is illustrated with 193 black & white photographs.
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